APPENDIX 13.3 – TRAFFIC DATA

TRANSYT 17

Version: 17.0.0.2525

For sales and distribution information, program advice and maintenance, contact TRL Software:
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Filename: Junction 3 DN&DS_2028_2043.t17
Path: G:\2023\p230156\calcs\transyt
Report generation date: 24/02/2025 14:45:34

Summary of network performance

	AM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	[1] Junction 3 - 2028 - DN				
Network	A1 D1	637.93	42.59	91% (TS 13/1)	1 (2%)

	PM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	[2] Junction 3 - 2028 - DN				
Network	A2 D2	3373.49	233.08	186% (TS 13/1)	3 (7%)

	AM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	[3] Junction 3 - 2028 - DS				
Network	A3 D3	777.21	52.05	101% (TS 13/1)	2 (5%)

	PM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	[4] Junction 3 - 2028 - DS				
Network	A4 D4	3919.23	270.93	192% (TS 13/1)	5 (12%)

	AM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	[5] Junction 3 - 2043 - DN				
Network	A5 D5	4047.55	280.01	178% (TS 13/1)	5 (12%)

	PM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	[6] Junction 3 - 2043 - DN				

Network	A6 D6	7577.74	526.06	180% (TS 17/1)	6 (15%)

	AM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	[7] Junction 3 - 2043 - DS				
Network	A7 D7	4618.93	319.49	187% (TS 13/1)	5 (12%)

	PM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	[8] Junction 3 - 2043 - DS				
Network	A8 D8	8556.50	594.40	190% (TS 17/1)	6 (15%)

File summary

File description

File title	(untitled)
Location	
Site number	
Driving side	Left
Date	21/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HEADOFFICE\GarveyD
Description	

Model and Results

Display journey time results	Display OD matrix distances	Display excess queue results	Display separate uniform and random results	Display TRANSYT 12 style timings	Display effective greens in results

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Traffic units input	Traffic units results
€	kph	m	mpg	l/h	PCU	PCU

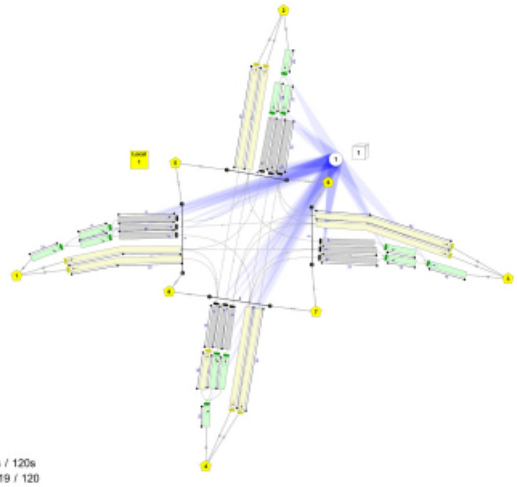
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	10000	10000	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
Cycletime 0s / 120s
Timesteps 119 / 120
4, 4
Diagram produced using TRANSYT 17.0.0.2525

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 35	No traffic node specified for arm(s): 35
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 32 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 32/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 34 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 34/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	637.93	42.59	91.16	13/1	1	2	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Specific Demand Set (s)	Optimise specific Demand Set (s)	Include in report	Locked
[1] Junction 3			✓	D1		✓	

Demand Set Details

Year	Scenario	Time period	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2028	DN	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	75	75	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
1x			
2			1
2x			
3			1
3x			
4			1
4x			
9			1
10			1
11			1
12			1
13			1
14			1
15			1
16			1
17			1
18			1
19			1
20			1
22			1
23			1
24			
25			
27			1
28			1
29			1
30			1
31			1
32			
33			1
34			
35			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1			✓	25.15	✓	Sum of lanes	2055	✓		Normal	
1x	1			✓	84.51						Normal	
2	1			✓	23.79	✓	Sum of lanes	1958	✓		Normal	
2x	1			✓	82.01						Normal	
3	1			✓	24.27	✓	Sum of lanes	1923	✓		Normal	
3x	1			✓	93.18						Normal	
4	1				31.00	✓	Sum of lanes	1951	✓		Normal, Bus	
4x	1			✓	80.19						Normal	
9	1			✓	25.82	✓	Sum of lanes	1813	✓		Normal	
10	1				7.00	✓	Sum of lanes	1903			Normal	
11	1				7.00	✓	Sum of lanes	1750			Normal	
12	1				16.00	✓	Sum of lanes	1872			Normal	
13	1			✓	25.04	✓	Sum of lanes	1935	✓		Normal	
14	1				6.00	✓	Sum of lanes	1964			Normal	
15	1				6.00	✓	Sum of lanes	1825			Normal	
16	1				31.00	✓	Sum of lanes	1853			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1721	✓		Normal, Bus	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2026			Normal	
22	1			✓	24.94	✓	Sum of lanes	2055	✓		Normal	
23	1			✓	23.88	✓	Sum of lanes	1747	✓		Normal, Bus	
24	1			✓	88.54						Bus	
25	1			✓	88.78						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal, Bus	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	7.85	✓	Sum of lanes	1800			Normal	
30	1			✓	7.31	✓	Sum of lanes	1800			Normal	
31	1			✓	24.32	✓	Sum of lanes	1800	✓		Normal	
32	1			✓	66.53						Bus	
33	1			✓	24.62	✓	Sum of lanes	1800	✓		Normal	
34	1			✓	89.20						Bus	
35	1			✓	20.17						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.26		1958
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	21.87		1923
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	28.01		1951
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	22.36	✓	1813
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	18.84		1903
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	15.95	✓	1750
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	65.69	✓	1872
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	0	25.38	✓	1935
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	32.26		1964
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.59	✓	1825
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	44.60	✓	1853
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	12.05	✓	1721
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	92	97.49		2026
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.96	✓	1747
24	1	1	(untitled)											
25	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800
31	1	1	(untitled)											1800
32	1	1	(untitled)											
33	1	1	(untitled)											1800
34	1	1	(untitled)											
35	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		4.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		4.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		4.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
22	1	NetworkDefault	100	100	100		4.00	
23	1	NetworkDefault	100	100	100		4.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	
31	1	NetworkDefault	100	100	100		4.00	
32	1	NetworkDefault	100	100	100		0.00	
33	1	NetworkDefault	100	100	100		4.00	
34	1	NetworkDefault	100	100	100		0.00	
35	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	262	262	
1x	1	331	331	
2	1	88	88	
2x	1	616	616	
3	1	62	62	
3x	1	931	931	
4	1	223	223	0
4x	1	728	728	
9	1	20	20	
10	1	261	261	
11	1	151	151	
12	1	412	412	
13	1	147	147	
14	1	62	62	
15	1	147	147	
16	1	209	209	
17	1	534	534	
18	1	96	96	0
19	1	223	223	
20	1	582	582	
22	1	598	598	
23	1	446	446	0
24	1	0		0
25	1	0		0
27	1	1044	1044	0
28	1	88	88	
29	1	1132	1132	
30	1	853	853	
31	1	130	130	
32	1	0		0
33	1	0	0	
34	1	223		0
35	1	48	48	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	K		0	0
2	1	1	A		0	0
3	1	1	D		0	0
4	1	1	G		0	0
9	1	1	L		0	0
13	1	1	E		0	0
17	1	1	H		0	0
18	1	1	I		0	0
22	1	1	B		0	0
23	1	1	C		0	0
31	1	1	J		0	0
33	1	1	F		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
12	1	1.92	30.00
16	1	3.72	30.00
29	1	1.00	30.00
30	1	1.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.02	30.00		✓	Offside	18.84
1x	1	1	2/1	1x/1	10.14	30.00		✓	Offside	30.26
2	1	1	28/1	2/1	2.86	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	9.84	30.00		✓	Offside	21.87
3	1	1	14/1	3/1	2.91	30.00		✓	Nearside	32.26
3x	1	1	4/1	3x/1	11.18	30.00		✓	Offside	28.98
4	1	1	19/1	4/1	3.72	30.00	5.00	✓	Straight	Straight Movement
4x	1	1	13/1	4x/1	9.62	30.00		✓	Nearside	25.38
9	1	1	11/1	9/1	3.10	30.00		✓	Offside	15.95
10	1	1	12/1	10/1	1.00	30.00		✓	Offside	65.69
11	1	1	12/1	11/1	1.00	30.00		✓	Offside	92.92
13	1	1	15/1	13/1	3.00	30.00		✓	Nearside	30.59
14	1	1	16/1	14/1	1.00	30.00		✓	Nearside	63.19
15	1	1	16/1	15/1	1.00	30.00		✓	Nearside	44.60
17	1	1	20/1	17/1	3.72	30.00		✓	Offside	97.49
18	1	1	20/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Offside	53.08
20	1	1	30/1	20/1	2.28	30.00		✓	Offside	53.43
22	1	1	27/1	22/1	2.99	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	2.87	30.00	5.00	✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00	5.00	✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
31	1	1	10/1	31/1	2.92	30.00		✓	Offside	19.26
32	1	1	18/1	32/1			5.00	✓	Nearside	12.05
33	1	1	15/1	33/1	2.95	30.00		✓	Nearside	34.90
34	1	1	23/1	34/1			5.00	✓	Nearside	13.96
35	1	1	30/1	35/1	2.42	30.00		✓	Offside	40.88
1	1	2	11/1	1/1	3.02	30.00		✓	Offside	15.98
1x	1	2	13/1	1x/1	10.14	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	9.84	30.00		✓	Nearside	22.36
3x	1	2	23/1	3x/1	11.18	30.00		✓	Nearside	14.42
4x	1	2	22/1	4x/1	9.62	30.00		✓	Straight	Straight Movement
18	1	2	35/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
34	1	2	4/1	34/1			5.00	✓	Offside	28.01
1x	1	3	18/1	1x/1	10.14	30.00		✓	Nearside	13.24
2x	1	3	17/1	2x/1	9.84	30.00		✓	Straight	Straight Movement
3x	1	3	1/1	3x/1	11.18	30.00		✓	Straight	Straight Movement
4x	1	3	31/1	4x/1	9.62	30.00		✓	Offside	21.85
		4	33/1	4x/1	9.62	30.00		✓	Nearside	22.13

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.80	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	M	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Limit paths by length	Path length limit multiplier	Limit paths by number	Limit paths by flow
1	(untitled)	✓	Path Equalisation			✓		✓	1.25		

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	20	262	130	0	0	0	0
	2	88	0	446	598	0	0	0	0
	3	147	62	0	0	0	0	0	0
	4	96	534	223	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1, 32/1	#0000FF
	2	(untitled)	29/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1, 34/1	#FF0000
	4	(untitled)	30/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	22		1	4	12/1, 10/1, 31/1, 4x/1	Normal	130
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	20
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	62
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	0
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	147
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	88
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	223
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	534
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	48
	42		4	1	30/1, 35/1, 18/1, 1x/1	Normal	48
	43		3	4	16/1, 15/1, 33/1, 4x/1	Normal	0
	44		2	3	29/1, 27/1, 23/1, 3x/1	Normal	446
	45		2	4	29/1, 27/1, 22/1, 4x/1	Normal	598
	46		1	3	12/1, 10/1, 1/1, 3x/1	Normal	131
	47		1	3	12/1, 11/1, 1/1, 3x/1	Normal	131

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		9	75

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A		7	0	0	Unknown	
	B		7	0	0	Unknown	
	C		7	0	0	Unknown	
	D		7	0	0	Unknown	
	E		7	0	0	Unknown	
	F		7	0	0	Unknown	
	G		7	0	0	Unknown	
	H		7	0	0	Unknown	
	I		7	0	0	Unknown	
	J		7	0	0	Unknown	
	K		7	0	0	Unknown	
	L		7	0	0	Unknown	
	M		7	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	K, E, L, F	1
	2	L, J, D, F	1
	3	B, H, C, I	1
	4	A, C, I, G	1
	5	M	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	M	2	5	0	8

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	75	
	2	(untitled)		Single	1, 2, 3, 5, 4	76	
	3	(untitled)		Single	1, 2, 4, 3, 5	77	
	4	(untitled)		Single	1, 2, 4, 5, 3	77	
	5	(untitled)		Single	1, 2, 5, 3, 4	75	
	6	(untitled)		Single	1, 2, 5, 4, 3	76	
	7	(untitled)		Single	1, 3, 2, 4, 5	79	
	8	(untitled)		Single	1, 3, 2, 5, 4	78	
	9	(untitled)		Single	1, 3, 4, 2, 5	75	
	10	(untitled)		Single	1, 3, 4, 5, 2	75	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F	G	H	I	J	K	L	M
A				5	5			5		6	5		10
B				5	6	6	5			5	5		10
C				5	6	6					5		10
D	6	5	5				5	5			5		9
E	5	5	5				5	8	8	6			10
F		5	5										8
G		6		6	5					5	5		10
H	5			5	5					5	5	6	10
I					5					5	6	6	10
J	5	5			5		6	5	5				9
K	5	6	8	5			5	5	5				10
L								5	5				8
M	14	14	14	14	14	14	14	14	14	14	6	14	

Banned Stage transitions for Controller Stream 1

From \ To	1	2	3	4	5
1					
2					
3					
4					
5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1	Green Period

Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1

Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1

Final Prediction Table

Traffic Stream Results

		SIGNALS				FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	K	262 <	2055	17	85	6	82.01	78.99	118.64	10.58 +	100
1x	1					331	Unrestricted	120	0	Unrestricted	10.14	0.00	0.00	0.00	100
2	1		1	1	A	88	1958	16	32	184	52.15	49.30	90.67	2.69	100
2x	1					616	Unrestricted	120	0	Unrestricted	9.84	0.00	0.00	0.00	100
3	1		1	1	D	62	1923	10	35	156	59.59	56.68	96.88	2.02	100
3x	1					931	Unrestricted	120	0	Unrestricted	11.18	0.00	0.00	0.00	100
4	1 NB		1	1	G	223 <	1951	16	81	12	78.64	74.92	115.25	8.73 +	100
4x	1					728	Unrestricted	120	0	Unrestricted	9.62	0.00	0.00	0.00	100
9	1		1	1	L	20	1813	19	6	1328	27.81	24.71	81.16	0.39	100
10	1		1			261	1903	120	14	556	1.15	0.15	0.00	0.01	100
11	1		1			151	1750	120	9	943	1.10	0.10	0.00	0.00	100
12	1		1			412	1872	120	22	309	2.19	0.27	0.00	0.03	100
13	1		1	1	E	147 <	1935	9	91	-1	131.82	128.82	150.81	7.89 +	100
14	1		1			62	1964	120	3	2751	1.03	0.03	0.00	0.00	100
15	1		1			147	1825	120	8	1017	1.09	0.09	0.00	0.00	100
16	1		1			209	1853	120	11	698	3.84	0.12	0.00	0.01	100
17	1		1	1	H	534 <	2055	38	80	13	51.05	47.33	97.86	17.71 +	100
18	1 NB		1	1	I	96	1721	57	12	680	20.98	17.26	53.42	1.74	100
19	1		1			223	2055	120	11	729	2.39	0.11	0.00	0.01	100
20	1		1			582	2026	120	29	213	2.64	0.36	0.00	0.06	100
22	1		1	1	B	598 <	2055	38	90	1	62.09	59.10	109.65	22.35 +	100
23	1 NB		1	1	C	446 <	1747	57	53	70	26.75	23.89	69.52	10.58 +	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1 NB		1			1044	2055	120	51	77	3.18	0.90	0.00	0.26	100
28	1		1			88	2055	120	4	2002	2.32	0.04	0.00	0.00	100
29	1		1			1132	1800	120	63	43	2.69	1.69	0.00	0.53	100
30	1		1			853	1800	120	47	90	1.90	0.90	0.00	0.21	100
31	1		1	1	J	130 <	1800	10	79	14	92.49	89.57	124.49	5.53 +	100
32	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
33	1		1	1	F	0	1800	19	0	Unrestricted	0.00	0.00	0.00	0.00	100
34	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
35	1					48	Unrestricted	120	0	Unrestricted	2.42	0.00	0.00	0.00	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	P
(ALL)	(ALL)	(untitled)		1	M	0	11000	7	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	363.27	54.78	6.63	42.59	604.74	33.19	0.00
Bus Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	363.27	54.78	6.63	42.59	604.74	33.19	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 35	No traffic node specified for arm(s): 35
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 32 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 32/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 34 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 34/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	3373.49	233.08	186.40	13/1	3	7	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Specific Demand Set (s)	Optimise specific Demand Set (s)	Include in report	Locked
[2] Junction 3			✓	D2		✓	

Demand Set Details

Year	Scenario	Time period	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2028	DN	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	75	75	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
1x			
2			1
2x			
3			1
3x			
4			1
4x			
9			1
10			1
11			1
12			1
13			1
14			1
15			1
16			1
17			1
18			1
19			1
20			1
22			1
23			1
24			
25			
27			1
28			1
29			1
30			1
31			1
32			
33			1
34			
35			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1			✓	25.15	✓	Sum of lanes	2055	✓		Normal	
1x	1			✓	84.51						Normal	
2	1			✓	23.79	✓	Sum of lanes	1958	✓		Normal	
2x	1			✓	82.01						Normal	
3	1			✓	24.27	✓	Sum of lanes	1923	✓		Normal	
3x	1			✓	93.18						Normal	
4	1				31.00	✓	Sum of lanes	1951	✓		Normal, Bus	
4x	1			✓	80.19						Normal	
9	1			✓	25.82	✓	Sum of lanes	1813	✓		Normal	
10	1				7.00	✓	Sum of lanes	1903			Normal	
11	1				7.00	✓	Sum of lanes	1750			Normal	
12	1				16.00	✓	Sum of lanes	1872			Normal	
13	1			✓	25.04	✓	Sum of lanes	1920	✓		Normal	
14	1				6.00	✓	Sum of lanes	1964			Normal	
15	1				6.00	✓	Sum of lanes	1825			Normal	
16	1				31.00	✓	Sum of lanes	1853			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1721	✓		Normal, Bus	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2027			Normal	
22	1			✓	24.94	✓	Sum of lanes	2055	✓		Normal	
23	1			✓	23.88	✓	Sum of lanes	1747	✓		Normal, Bus	
24	1			✓	88.54						Bus	
25	1			✓	88.78						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal, Bus	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	7.85	✓	Sum of lanes	1800			Normal	
30	1			✓	7.31	✓	Sum of lanes	1800			Normal	
31	1			✓	24.32	✓	Sum of lanes	1800	✓		Normal	
32	1			✓	66.53						Bus	
33	1			✓	24.62	✓	Sum of lanes	1800	✓		Normal	
34	1			✓	89.20						Bus	
35	1			✓	20.17						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.26		1958
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	21.87		1923
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	28.01		1951
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	22.36	✓	1813
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	18.84		1903
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	15.95	✓	1750
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	65.69	✓	1872
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	13	25.38	✓	1920
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	32.26		1964
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.59	✓	1825
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	44.60	✓	1853
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	12.05	✓	1721
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	89	97.49		2027
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.96	✓	1747
24	1	1	(untitled)											
25	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800
31	1	1	(untitled)											1800
32	1	1	(untitled)											
33	1	1	(untitled)											1800
34	1	1	(untitled)											
35	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		4.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		4.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		4.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
22	1	NetworkDefault	100	100	100		4.00	
23	1	NetworkDefault	100	100	100		4.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	
31	1	NetworkDefault	100	100	100		4.00	
32	1	NetworkDefault	100	100	100		0.00	
33	1	NetworkDefault	100	100	100		4.00	
34	1	NetworkDefault	100	100	100		0.00	
35	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	352	352	
1x	1	680	680	
2	1	68	68	
2x	1	1152	1152	
3	1	353	353	
3x	1	647	647	
4	1	91	91	0
4x	1	783	783	
9	1	143	143	
10	1	305	305	
11	1	319	319	
12	1	624	624	
13	1	507	507	
14	1	353	353	
15	1	570	570	
16	1	923	923	
17	1	656	656	
18	1	169	169	0
19	1	91	91	
20	1	741	741	
22	1	527	527	
23	1	204	204	0
24	1	0		0
25	1	0		0
27	1	731	731	0
28	1	68	68	
29	1	799	799	
30	1	916	916	
31	1	129	129	
32	1	0		0
33	1	64	64	
34	1	223		0
35	1	85	85	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	K		0	0
2	1	1	A		0	0
3	1	1	D		0	0
4	1	1	G		0	0
9	1	1	L		0	0
13	1	1	E		0	0
17	1	1	H		0	0
18	1	1	I		0	0
22	1	1	B		0	0
23	1	1	C		0	0
31	1	1	J		0	0
33	1	1	F		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
12	1	1.92	30.00
16	1	3.72	30.00
29	1	1.00	30.00
30	1	1.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.02	30.00		✓	Offside	16.84
1x	1	1	2/1	1x/1	10.14	30.00		✓	Offside	30.26
2	1	1	28/1	2/1	2.86	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	9.84	30.00		✓	Offside	21.87
3	1	1	14/1	3/1	2.91	30.00		✓	Nearside	32.26
3x	1	1	4/1	3x/1	11.18	30.00		✓	Offside	28.98
4	1	1	19/1	4/1	3.72	30.00	5.00	✓	Straight	Straight Movement
4x	1	1	13/1	4x/1	9.62	30.00		✓	Nearside	25.38
9	1	1	11/1	9/1	3.10	30.00		✓	Offside	15.95
10	1	1	12/1	10/1	1.00	30.00		✓	Offside	65.69
11	1	1	12/1	11/1	1.00	30.00		✓	Offside	92.92
13	1	1	15/1	13/1	3.00	30.00		✓	Nearside	30.59
14	1	1	16/1	14/1	1.00	30.00		✓	Nearside	63.19
15	1	1	16/1	15/1	1.00	30.00		✓	Nearside	44.60
17	1	1	20/1	17/1	3.72	30.00		✓	Offside	97.49
18	1	1	20/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Offside	53.08
20	1	1	30/1	20/1	2.28	30.00		✓	Offside	53.43
22	1	1	27/1	22/1	2.99	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	2.87	30.00	5.00	✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00	5.00	✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
31	1	1	10/1	31/1	2.92	30.00		✓	Offside	19.26
32	1	1	18/1	32/1			5.00	✓	Nearside	12.05
33	1	1	15/1	33/1	2.95	30.00		✓	Nearside	34.90
34	1	1	23/1	34/1			5.00	✓	Nearside	13.96
35	1	1	30/1	35/1	2.42	30.00		✓	Offside	40.88
1	1	2	11/1	1/1	3.02	30.00		✓	Offside	15.98
1x	1	2	13/1	1x/1	10.14	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	9.84	30.00		✓	Nearside	22.36
3x	1	2	23/1	3x/1	11.18	30.00		✓	Nearside	14.42
4x	1	2	22/1	4x/1	9.62	30.00		✓	Straight	Straight Movement
18	1	2	35/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
34	1	2	4/1	34/1			5.00	✓	Offside	28.01
1x	1	3	18/1	1x/1	10.14	30.00		✓	Nearside	13.24
2x	1	3	17/1	2x/1	9.84	30.00		✓	Straight	Straight Movement
3x	1	3	1/1	3x/1	11.18	30.00		✓	Straight	Straight Movement
4x	1	3	31/1	4x/1	9.62	30.00		✓	Offside	21.85
		4	33/1	4x/1	9.62	30.00		✓	Nearside	22.13

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	M	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Limit paths by length	Path length limit multiplier	Limit paths by number	Limit paths by flow
1	(untitled)	✓	Path Equalisation			✓		✓	1.25		

Normal Input Flows (PCU/hr)

From \ To	1	2	3	4	5	6	7	8
1	0	143	352	129	0	0	0	0
2	68	0	204	527	0	0	0	0
3	443	353	0	127	0	0	0	0
4	169	656	91	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1, 32/1	#0000FF
	2	(untitled)	29/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1, 34/1	#FF0000
	4	(untitled)	30/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	22		1	4	12/1, 10/1, 31/1, 4x/1	Normal	129
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	143
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	353
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	64
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	443
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	68
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	91
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	656
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	85
	42		4	1	30/1, 35/1, 18/1, 1x/1	Normal	85
	43		3	4	16/1, 15/1, 33/1, 4x/1	Normal	64
	44		2	3	29/1, 27/1, 23/1, 3x/1	Normal	204
	45		2	4	29/1, 27/1, 22/1, 4x/1	Normal	527
	46		1	3	12/1, 10/1, 1/1, 3x/1	Normal	176
	47		1	3	12/1, 11/1, 1/1, 3x/1	Normal	176

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		9	75

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A		7	0	0	Unknown	
	B		7	0	0	Unknown	
	C		7	0	0	Unknown	
	D		7	0	0	Unknown	
	E		7	0	0	Unknown	
	F		7	0	0	Unknown	
	G		7	0	0	Unknown	
	H		7	0	0	Unknown	
	I		7	0	0	Unknown	
	J		7	0	0	Unknown	
	K		7	0	0	Unknown	
	L		7	0	0	Unknown	
	M		7	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	K, E, L, F	1
	2	L, J, D, F	1
	3	B, H, C, I	1
	4	A, C, I, G	1
	5	M	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	75	
	2	(untitled)		Single	1, 2, 3, 5, 4	76	
	3	(untitled)		Single	1, 2, 4, 3, 5	77	
	4	(untitled)		Single	1, 2, 4, 5, 3	77	
	5	(untitled)		Single	1, 2, 5, 3, 4	75	
	6	(untitled)		Single	1, 2, 5, 4, 3	76	
	7	(untitled)		Single	1, 3, 2, 4, 5	79	
	8	(untitled)		Single	1, 3, 2, 5, 4	78	
	9	(untitled)		Single	1, 3, 4, 2, 5	75	
	10	(untitled)		Single	1, 3, 4, 5, 2	75	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F	G	H	I	J	K	L	M
A				5	5			5		6	5		10
B				5	6	6	5			5	5		10
C				5	6	6					5		10
D	6	5	5				5	5			5		9
E	5	5	5				5	6	6				10
F		5	5										8
G		6		6	5					5	5		10
H	5			5	5					5	5	6	10
I					5					5	6	6	10
J	5	5			5		6	5	5				9
K	5	6	8	5			5	5	5				10
L								5	5				8
M	14	14	14	14	14	14	14	14	14	14	6	14	

Banned Stage transitions for Controller Stream 1

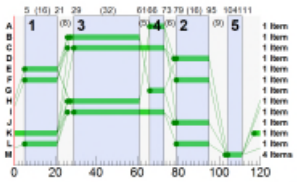
From \ To	1	2	3	4	5
1					
2					
3					
4					
5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1			Green Period 2		
					Start	End	Duration	Start	End	Duration
1	1	1	1	K	117	21	24			
2	1	1	1	A	66	73	7			
3	1	1	1	D	79	95	16			
4	1	1	1	G	66	73	7			
9	1	1	1	L	79	95	16	5	21	16
13	1	1	1	E	5	21	16			
17	1	1	1	H	27	61	34			
18	1	1	1	I	29	73	44			
22	1	1	1	B	27	61	34			
23	1	1	1	C	29	73	44			
31	1	1	1	J	79	95	16			
33	1	1	1	F	79	95	16	5	21	16

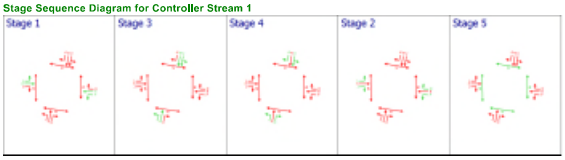
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	82	9	352	2055	24	63.58	12.93	323.15	88.28	4.79	93.06
	1x	1	0	Unrestricted	476	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	52	73	68	1958	7	68.77	2.47	61.68	18.45	0.91	19.36
	2x	1	0	Unrestricted	1015	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	130	-31	353	1923	16	466.81	50.88	1272.03	649.98	10.77	660.76
	3x	1	0	Unrestricted	647	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	70	29	91	1951	7	84.85	3.72	74.32	30.46	1.37	31.83
	4x	1	0	Unrestricted	754	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	28	223	143	1813	32	19.87	2.48	61.92	11.21	1.38	12.59
	10	1	16	462	305	1903	120	0.18	0.02	1.53	0.22	0.00	0.22
	11	1	18	394	319	1750	120	0.23	0.02	2.03	0.29	0.00	0.29
	12	1	33	170	624	1872	120	0.48	0.08	4.16	1.18	0.00	1.18
	13	1	186	-52	507	1920	16	866.00	127.06	3176.56	1731.86	15.74	1747.60
	14	1	18	401	353	1964	120	0.20	0.02	1.97	0.28	0.00	0.28
	15	1	31	188	571	1825	120	0.45	0.07	7.12	1.01	0.00	1.01
	16	1	50	80	924	1853	120	0.96	0.25	4.95	3.52	0.00	3.52
	17	1	109	-18	656	2055	34	218.57	52.57	1051.31	565.57	16.19	581.76
	18	1	26	242	170	1721	44	27.01	3.97	79.33	18.11	1.47	19.58
	19	1	4	1932	91	2055	120	0.04	0.00	0.03	0.01	0.00	0.01
	20	1	37	146	741	2027	120	0.51	0.11	3.51	1.49	0.00	1.49
	22	1	88	2	527	2055	34	60.29	19.59	489.68	125.33	7.22	132.55
	23	1	31	189	204	1747	44	27.78	4.83	120.76	22.35	1.79	24.14
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	36	153	731	2055	120	0.48	0.10	3.27	1.39	0.00	1.39
	28	1	3	2620	68	2055	120	0.03	0.00	0.02	0.01	0.00	0.01
	29	1	44	103	799	1800	120	0.80	0.18	12.97	2.51	0.00	2.51
	30	1	51	77	917	1800	120	1.04	0.26	20.77	3.75	0.00	3.75
	31	1	51	78	129	1800	16	54.76	4.20	104.94	27.86	1.58	29.43
	32	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	33	1	13	617	64	1800	32	18.19	1.06	26.45	4.59	0.58	5.18
	34	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	35	1	0	Unrestricted	85	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	(ALL)	(ALL)	0	0	11000	7	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

From \ To	1	2	3	4	5	6	7	8
1	0.0	36.4	81.4	70.9	0.0	0.0	0.0	0.0
2	85.9	0.0	46.4	77.5	0.0	0.0	0.0	0.0
3	885.3	485.4	0.0	460.8	0.0	0.0	0.0	0.0
4	45.5	237.0	104.1	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
22	1	4	129		70.88		127.50	0.00	0.00	0.00	129	70.88	127.50
24	1	2	143		36.44		130.83	0.00	0.00	0.00	143	36.44	130.83
26	3	2	353		485.45		143.28	0.00	0.00	0.00	353	485.45	143.28
27	3	4	64		884.76		142.22	0.00	0.00	0.00	64	884.76	142.22
28	3	1	443		885.28		146.54	0.00	0.00	0.00	443	885.28	146.54
34	2	1	68		85.88		135.15	0.00	0.00	0.00	68	85.88	135.15
35	4	3	91		104.11		150.49	0.00	0.00	0.00	91	104.11	150.49
36	4	2	656		236.96		139.32	0.00	0.00	0.00	656	236.96	139.32
37	4	1	85		45.70		141.82	0.00	0.00	0.00	85	45.70	141.82
42	4	1	85		45.33		142.99	0.00	0.00	0.00	85	45.33	142.99
43	3	4	64		36.90		141.80	0.00	0.00	0.00	64	36.90	141.80
44	2	3	204		46.39		143.91	0.00	0.00	0.00	204	46.39	143.91
45	2	4	527		77.47		131.97	0.00	0.00	0.00	527	77.47	131.97
46	1	3	176		81.36		141.33	0.00	0.00	0.00	176	81.36	141.33
47	1	3	176		81.41		141.33	0.00	0.00	0.00	176	81.41	141.33

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	K	352 <	2055	24	82	9	66.60	63.58	108.46	12.93 +	100
1x	1					476	Unrestricted	120	0	Unrestricted	10.14	0.00	0.00	0.00	100
2	1		1	1	A	68	1958	7	52	73	71.63	68.77	107.05	2.47	100
2x	1					1015	Unrestricted	120	0	Unrestricted	9.84	0.00	0.00	0.00	100
3	1		1	1	D	353 <	1923	16	130	-31	469.72	466.81	315.43	50.88 +	100
3x	1					647	Unrestricted	120	0	Unrestricted	11.18	0.00	0.00	0.00	100
4	1 NB		1	1	G	91	1951	7	70	29	88.57	84.85	120.02	3.72	100
4x	1					754	Unrestricted	120	0	Unrestricted	9.62	0.00	0.00	0.00	100
9	1		1	1	L	143	1813	32	28	223	22.97	19.87	76.89	2.48	100
10	1		1			305	1903	120	16	462	1.18	0.18	0.00	0.02	100
11	1		1			319	1750	120	18	394	1.23	0.23	0.00	0.02	100
12	1		1			624	1872	120	33	170	2.40	0.48	0.00	0.08	100
13	1		1	1	E	507 <	1920	16	186	-52	869.01	866.00	461.46	127.06 +	100
14	1		1			353	1964	120	18	401	1.20	0.20	0.00	0.02	100
15	1		1			571	1825	120	31	188	1.45	0.45	0.00	0.07	100
16	1		1			924	1853	120	50	80	4.68	0.96	0.00	0.25	100
17	1		1	1	H	656 <	2055	34	109	-18	222.29	218.57	215.38	52.57 +	100
18	1 NB		1	1	I	170	1721	44	26	242	30.73	27.01	68.77	3.97	100
19	1		1			91	2055	120	4	1932	2.32	0.04	0.00	0.00	100
20	1		1			741	2027	120	37	146	2.79	0.51	0.00	0.11	100
22	1		1	1	B	527 <	2055	34	88	2	63.28	60.29	109.31	19.59 +	100
23	1 NB		1	1	C	204 <	1747	44	31	189	30.64	27.78	70.03	4.83 +	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1 NB		1			731	2055	120	36	153	2.76	0.48	0.00	0.10	100
28	1		1			68	2055	120	3	2620	2.31	0.03	0.00	0.00	100
29	1		1			799	1800	120	44	103	1.80	0.80	0.00	0.18	100
30	1		1			917	1800	120	51	77	2.04	1.04	0.00	0.26	100
31	1		1	1	J	129 <	1800	16	51	78	57.68	54.76	96.54	4.20 +	100
32	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
33	1		1	1	F	64	1800	32	13	617	21.15	18.19	72.60	1.06	100
34	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
35	1					85	Unrestricted	120	0	Unrestricted	2.42	0.00	0.00	0.00	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	M	0	11000	7	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	424,99	247,39	1,72	233,08	3309,72	63,77	0,00
Bus	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Cycle							
Pedestrians	0,00	0,00	0,00	0,00	0,00	0,00	0,00
TOTAL	424,99	247,39	1,72	233,08	3309,72	63,77	0,00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 35	No traffic node specified for arm(s): 35
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 32 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 32/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 34 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 34/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	777,21	52,05	101,24	13/1	2	5	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Specific Demand Set (s)	Optimise specific Demand Set (s)	Include in report	Locked
[3] Junction 3			✓	D3		✓	

Demand Set Details

Year	Scenario	Time period	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2028	DS	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	75	75	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14,20	2,60	14,20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
1x			
2			1
2x			
3			1
3x			
4			1
4x			
9			1
10			1
11			1
12			1
13			1
14			1
15			1
16			1
17			1
18			1
19			1
20			1
22			1
23			1
24			
25			
27			1
28			1
29			1
30			1
31			1
32			
33			1
34			
35			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1			✓	25,15	✓	Sum of lanes	2055	✓		Normal	
1x	1			✓	84,51						Normal	
2	1			✓	23,79	✓	Sum of lanes	1958	✓		Normal	
2x	1			✓	82,01						Normal	
3	1			✓	24,27	✓	Sum of lanes	1923	✓		Normal	
3x	1			✓	93,18						Normal	
4	1				31,00	✓	Sum of lanes	1951	✓		Normal, Bus	
4x	1			✓	80,19						Normal	
9	1			✓	25,82	✓	Sum of lanes	1813	✓		Normal	
10	1				7,00	✓	Sum of lanes	1903			Normal	
11	1				7,00	✓	Sum of lanes	1750			Normal	
12	1				16,00	✓	Sum of lanes	1872			Normal	
13	1			✓	25,04	✓	Sum of lanes	1932	✓		Normal	
14	1				6,00	✓	Sum of lanes	1964			Normal	
15	1				6,00	✓	Sum of lanes	1825			Normal	
16	1				31,00	✓	Sum of lanes	1853			Normal	
17	1				31,00	✓	Sum of lanes	2055	✓		Normal	
18	1				31,00	✓	Sum of lanes	1721	✓		Normal, Bus	
19	1				19,00	✓	Sum of lanes	2055			Normal	
20	1				19,00	✓	Sum of lanes	2026			Normal	
22	1			✓	24,94	✓	Sum of lanes	2055	✓		Normal	
23	1			✓	23,88	✓	Sum of lanes	1747	✓		Normal, Bus	
24	1			✓	86,54						Bus	
25	1			✓	86,78						Bus	
27	1				19,00	✓	Sum of lanes	2055			Normal, Bus	
28	1				19,00	✓	Sum of lanes	2055			Normal	
29	1			✓	7,85	✓	Sum of lanes	1800			Normal	
30	1			✓	7,31	✓	Sum of lanes	1800			Normal	
31	1			✓	24,32	✓	Sum of lanes	1800	✓		Normal	
32	1			✓	66,53						Bus	
33	1			✓	24,62	✓	Sum of lanes	1800	✓		Normal	
34	1			✓	89,20						Bus	
35	1			✓	20,17						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.26		1958
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	21.87		1923
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	28.01		1951
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	22.36	✓	1813
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	18.84		1903
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	15.95	✓	1750
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	65.69	✓	1872
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	3	25.38	✓	1932
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	32.26		1964
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.59	✓	1825
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	44.60	✓	1853
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	12.05	✓	1721
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	92	97.49		2026
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.96	✓	1747
24	1	1	(untitled)											
25	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800
31	1	1	(untitled)											1800
32	1	1	(untitled)											
33	1	1	(untitled)											1800
34	1	1	(untitled)											
35	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		4.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		4.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		4.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
22	1	NetworkDefault	100	100	100		4.00	
23	1	NetworkDefault	100	100	100		4.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	
31	1	NetworkDefault	100	100	100		4.00	
32	1	NetworkDefault	100	100	100		0.00	
33	1	NetworkDefault	100	100	100		4.00	
34	1	NetworkDefault	100	100	100		0.00	
35	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	278	278	
1x	1	390	390	
2	1	136	136	
2x	1	764	764	
3	1	71	71	
3x	1	954	954	
4	1	227	227	0
4x	1	753	753	
9	1	113	113	
10	1	269	269	
11	1	252	252	
12	1	521	521	
13	1	163	163	
14	1	71	71	
15	1	167	167	
16	1	238	238	
17	1	580	580	
18	1	96	96	0
19	1	227	227	
20	1	628	628	
22	1	614	614	
23	1	449	449	0
24	1	0		0
25	1	0		0
27	1	1063	1063	0
28	1	136	136	
29	1	1199	1199	
30	1	903	903	
31	1	130	130	
32	1	0		0
33	1	5	5	
34	1	223		0
35	1	48	48	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	K		0	0
2	1	1	A		0	0
3	1	1	D		0	0
4	1	1	G		0	0
9	1	1	L		0	0
13	1	1	E		0	0
17	1	1	H		0	0
18	1	1	I		0	0
22	1	1	B		0	0
23	1	1	C		0	0
31	1	1	J		0	0
33	1	1	F		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
12	1	1.92	30.00
16	1	3.72	30.00
29	1	1.00	30.00
30	1	1.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.02	30.00		✓	Offside	18.84
1x	1	1	2/1	1x/1	10.14	30.00		✓	Offside	30.26
2	1	1	28/1	2/1	2.86	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	9.84	30.00		✓	Offside	21.87
3	1	1	14/1	3/1	2.91	30.00		✓	Nearside	32.26
3x	1	1	4/1	3x/1	11.18	30.00		✓	Offside	28.98
4	1	1	19/1	4/1	3.72	30.00	5.00	✓	Straight	Straight Movement
4x	1	1	13/1	4x/1	9.62	30.00		✓	Nearside	25.38
9	1	1	11/1	9/1	3.10	30.00		✓	Offside	15.95
10	1	1	12/1	10/1	1.00	30.00		✓	Offside	65.69
11	1	1	12/1	11/1	1.00	30.00		✓	Offside	92.92
13	1	1	15/1	13/1	3.00	30.00		✓	Nearside	30.59
14	1	1	16/1	14/1	1.00	30.00		✓	Nearside	63.19
15	1	1	16/1	15/1	1.00	30.00		✓	Nearside	44.60
17	1	1	20/1	17/1	3.72	30.00		✓	Offside	97.49
19	1	1	30/1	19/1	2.28	30.00		✓	Offside	53.08
20	1	1	30/1	20/1	2.28	30.00		✓	Offside	53.43
22	1	1	27/1	22/1	2.99	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	2.87	30.00	5.00	✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00	5.00	✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
31	1	1	10/1	31/1	2.92	30.00		✓	Offside	19.26
32	1	1	18/1	32/1			5.00	✓	Nearside	12.05
33	1	1	15/1	33/1	2.95	30.00		✓	Nearside	34.90
34	1	1	23/1	34/1			5.00	✓	Nearside	13.96
35	1	1	30/1	35/1	2.42	30.00		✓	Offside	40.88
1	1	2	11/1	1/1	3.02	30.00		✓	Offside	15.98
1x	1	2	13/1	1x/1	10.14	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	9.84	30.00		✓	Nearside	22.36
3x	1	2	23/1	3x/1	11.18	30.00		✓	Nearside	14.42
4x	1	2	22/1	4x/1	9.62	30.00		✓	Straight	Straight Movement
18	1	2	35/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
34	1	2	4/1	34/1			5.00	✓	Offside	28.01
1x	1	3	18/1	1x/1	10.14	30.00		✓	Nearside	13.24
2x	1	3	17/1	2x/1	9.84	30.00		✓	Straight	Straight Movement
3x	1	3	1/1	3x/1	11.18	30.00		✓	Straight	Straight Movement
4x	1	3	31/1	4x/1	9.62	30.00		✓	Offside	21.85
		4	33/1	4x/1	9.62	30.00		✓	Nearside	22.13

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	M	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Limit paths by length	Path length limit multiplier	Limit paths by number	Limit paths by flow
1	(untitled)	✓	Path Equalisation			✓		✓	1.25		

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	113	278	130	0	0	0	0
	2	136	0	449	614	0	0	0	0
	3	158	71	0	9	0	0	0	0
	4	96	580	227	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1, 32/1	#0000FF
	2	(untitled)	29/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1, 34/1	#FF0000
	4	(untitled)	30/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	22		1	4	12/1, 10/1, 31/1, 4x/1	Normal	130
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	113
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	71
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	5
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	158
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	136
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	227
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	580
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	48
	42		4	1	30/1, 35/1, 18/1, 1x/1	Normal	48
	43		3	4	16/1, 15/1, 33/1, 4x/1	Normal	5
	44		2	3	29/1, 27/1, 23/1, 3x/1	Normal	449
	45		2	4	29/1, 27/1, 22/1, 4x/1	Normal	614
	46		1	3	12/1, 10/1, 1/1, 3x/1	Normal	139
	47		1	3	12/1, 11/1, 1/1, 3x/1	Normal	139

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		9	75

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A		7	0	0	Unknown	
	B		7	0	0	Unknown	
	C		7	0	0	Unknown	
	D		7	0	0	Unknown	
	E		7	0	0	Unknown	
	F		7	0	0	Unknown	
	G		7	0	0	Unknown	
	H		7	0	0	Unknown	
	I		7	0	0	Unknown	
	J		7	0	0	Unknown	
	K		7	0	0	Unknown	
	L		7	0	0	Unknown	
	M		7	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	K, E, L, F	1
	2	L, J, D, F	1
	3	B, H, C, I	1
	4	A, C, I, G	1
	5	M	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	75	
	2	(untitled)		Single	1, 2, 3, 5, 4	76	
	3	(untitled)		Single	1, 2, 4, 3, 5	77	
	4	(untitled)		Single	1, 2, 4, 5, 3	77	
	5	(untitled)		Single	1, 2, 5, 3, 4	75	
	6	(untitled)		Single	1, 2, 5, 4, 3	76	
	7	(untitled)		Single	1, 3, 2, 4, 5	79	
	8	(untitled)		Single	1, 3, 2, 5, 4	78	
	9	(untitled)		Single	1, 3, 4, 2, 5	75	
	10	(untitled)		Single	1, 3, 4, 5, 2	75	

Intergreen Matrix for Controller Stream 1

		To											
		A	B	C	D	E	F	G	H	I	J	K	L	M
From	A				5	5			5		6	5		10
	B				5	6	6	5			5	5		10
	C				5	6	6					5		10
	D	6	5	5				5	5			5		9
	E	5	5	5				5	6	8	6			10
	F		5	5										8
	G		6		6	5					5	5		10
	H	5			5	5					5	5	6	10
	I					5					5	6	6	10
	J	5	5			5		6	5	5				9
	K	5	6	8	5			5	5	5				10
	L								5	5				8
	M	14	14	14	14	14	14	14	14	14	14	6	14	

Banned Stage transitions for Controller Stream 1

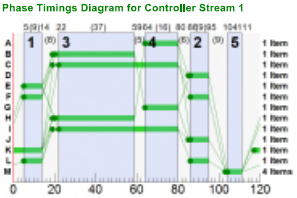
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1			Green Period 2		
					Start	End	Duration	Start	End	Duration
1	1	1	1	K	117	14	17			
2	1	1	1	A	64	80	16			
3	1	1	1	D	86	95	9			
4	1	1	1	G	64	80	16			
9	1	1	1	L	86	95	9	5	14	9
13	1	1	1	E	5	14	9			
17	1	1	1	H	20	59	39			
18	1	1	1	I	22	80	58			
22	1	1	1	B	20	59	39			
23	1	1	1	C	22	80	58			
31	1	1	1	J	86	95	9			
33	1	1	1	F	86	95	9	5	14	9

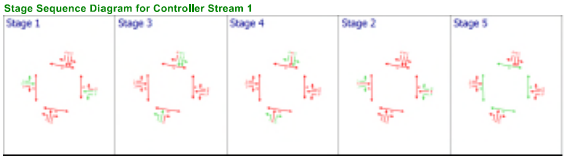
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:00-09:00	1	1	90	0	278	2055	17	92.26	12.29	307.20	101.16	4.49	105.65
	1x	1	0	Unrestricted	388	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	49	84	136	1958	16	53.69	4.39	109.72	28.80	1.63	30.44
	2x	1	0	Unrestricted	764	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	44	103	71	1923	9	61.18	2.42	60.55	17.13	0.90	18.04
	3x	1	0	Unrestricted	954	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	82	10	227	1951	16	77.18	9.03	180.53	69.11	3.33	72.44
	4x	1	0	Unrestricted	754	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	37	141	113	1813	18	29.69	2.47	61.63	13.24	1.29	14.53
	10	1	14	537	269	1903	120	0.16	0.01	1.16	0.17	0.00	0.17
	11	1	14	525	252	1750	120	0.17	0.01	1.21	0.17	0.00	0.17
	12	1	28	223	521	1872	120	0.37	0.05	2.68	0.76	0.00	0.76
	13	1	101	-11	163	1932	9	196.49	11.76	293.97	126.33	3.83	130.16
	14	1	4	2390	71	1964	120	0.03	0.00	0.07	0.01	0.00	0.01
	15	1	9	878	168	1825	120	0.10	0.00	0.47	0.07	0.00	0.07
	16	1	13	598	239	1853	120	0.14	0.01	0.19	0.14	0.00	0.14
	17	1	85	6	580	2055	39	50.87	20.09	401.87	116.38	7.43	123.81
	18	1	11	693	96	1721	58	16.71	1.71	34.28	6.33	0.63	6.96
	19	1	11	715	227	2055	120	0.11	0.01	0.23	0.10	0.00	0.10
	20	1	31	190	628	2026	120	0.40	0.07	2.32	0.99	0.00	0.99
	22	1	90	0	614	2055	39	58.28	22.90	572.41	141.14	8.41	149.55
	23	1	52	72	449	1747	58	23.15	10.51	262.81	41.01	3.85	44.86
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	52	74	1063	2055	120	0.94	0.28	9.22	3.93	0.00	3.93
	28	1	7	1260	136	2055	120	0.06	0.00	0.08	0.03	0.00	0.03
	29	1	67	35	1199	1800	120	1.99	0.66	48.48	9.39	0.00	9.39
	30	1	50	79	903	1800	120	1.01	0.25	19.83	3.58	0.00	3.58
	31	1	87	4	130	1800	9	114.28	6.43	160.63	58.60	2.31	60.91
	32	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	33	1	2	5300	5	1800	18	25.03	0.10	2.47	0.49	0.05	0.54
	34	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	35	1	0	Unrestricted	48	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
08:00-09:00	(ALL)	(ALL)	0	0	11000	7	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

From \ To	1	2	3	4	5	6	7	8
1	0.0	46.1	109.9	130.3	0.0	0.0	0.0	0.0
2	72.0	0.0	43.4	77.1	0.0	0.0	0.0	0.0
3	214.6	78.8	0.0	128.3	0.0	0.0	0.0	0.0
4	35.1	69.1	96.5	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
22	1	4	130		130.27		127.50	0.00	0.00	0.00	130	130.27	127.50
24	1	2	113		46.10		130.83	0.00	0.00	0.00	113	46.10	130.83
26	3	2	71		78.83		143.28	0.00	0.00	0.00	71	78.83	143.28
27	3	4	5		214.08		142.22	0.00	0.00	0.00	5	214.08	142.22
28	3	1	158		214.60		146.54	0.00	0.00	0.00	158	214.60	146.54
34	2	1	136		72.02		135.15	0.00	0.00	0.00	136	72.02	135.15
35	4	3	227		96.48		150.49	0.00	0.00	0.00	227	96.48	150.49
36	4	2	580		69.12		139.32	0.00	0.00	0.00	580	69.12	139.32
37	4	1	48		35.25		141.82	0.00	0.00	0.00	48	35.25	141.82
42	4	1	48		35.00		142.99	0.00	0.00	0.00	48	35.00	142.99
43	3	4	5		42.57		141.80	0.00	0.00	0.00	5	42.57	141.80
44	2	3	449		43.41		143.91	0.00	0.00	0.00	449	43.41	143.91
45	2	4	614		77.09		131.97	0.00	0.00	0.00	614	77.09	131.97
46	1	3	139		109.90		141.33	0.00	0.00	0.00	139	109.90	141.33
47	1	3	139		109.92		141.33	0.00	0.00	0.00	139	109.92	141.33

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase		Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	K		278 <	2055	17	90	0	95.27	92.26	128.68	12.29 +	100
1x	1						388	Unrestricted	120	0	Unrestricted	10.14	0.00	0.00	0.00	100
2	1		1	1	A		136 <	1958	16	49	84	56.55	53.69	95.76	4.39 +	100
2x	1						764	Unrestricted	120	0	Unrestricted	9.84	0.00	0.00	0.00	100
3	1		1	1	D		71	1923	9	44	103	64.09	61.18	101.18	2.42	100
3x	1						954	Unrestricted	120	0	Unrestricted	11.18	0.00	0.00	0.00	100
4	1 NB		1	1	G		227 <	1951	16	82	10	80.90	77.18	116.99	9.03 +	100
4x	1						754	Unrestricted	120	0	Unrestricted	9.62	0.00	0.00	0.00	100
9	1		1	1	L		113	1813	18	37	141	32.79	29.69	91.34	2.47	100
10	1		1				269	1903	120	14	537	1.16	0.16	0.00	0.01	100
11	1		1				252	1750	120	14	525	1.17	0.17	0.00	0.01	100
12	1		1				521	1872	120	28	223	2.29	0.37	0.00	0.05	100
13	1		1	1	E		163 <	1932	9	101	-11	199.49	196.49	189.69	11.76 +	100
14	1		1				71	1964	120	4	2390	1.03	0.03	0.00	0.00	100
15	1		1				168	1825	120	9	878	1.10	0.10	0.00	0.00	100
16	1		1				239	1853	120	13	598	3.86	0.14	0.00	0.01	100
17	1		1	1	H		580 <	2055	39	85	6	54.59	50.87	102.12	20.09 *	100
18	1 NB		1	1	I		96	1721	58	11	693	20.43	16.71	52.57	1.71	100
19	1		1				227	2055	120	11	715	2.39	0.11	0.00	0.01	100
20	1		1				628	2026	120	31	190	2.68	0.40	0.00	0.07	100
22	1		1	1	B		614 <	2055	39	90	0	61.27	58.28	109.18	22.90 +	100
23	1 NB		1	1	C		449 <	1747	58	52	72	26.02	23.15	68.37	10.51 +	100
24	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1 NB		1				1063	2055	120	52	74	3.22	0.94	0.00	0.28	100
28	1		1				136	2055	120	7	1260	2.34	0.06	0.00	0.00	100
29	1		1				1199	1800	120	67	35	2.99	1.99	0.00	0.66	100
30	1		1				903	1800	120	50	79	2.01	1.01	0.00	0.25	100
31	1		1	1	J		130 <	1800	9	87	4	117.20	114.28	141.53	6.43 +	100
32	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
33	1		1	1	F		5	1800	18	2	5300	27.98	25.03	81.53	0.10	100
34	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
35	1						48	Unrestricted	120	0	Unrestricted	2.42	0.00	0.00	0.00	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	M	0	11000	7	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	397.89	65.40	6.08	52.05	739.07	38.14	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	397.89	65.40	6.08	52.05	739.07	38.14	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 35	No traffic node specified for arm(s): 35
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 32 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 32/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 34 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 34/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	3919.23	270.93	192.28	13/1	5	12	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Specific Demand Set (s)	Optimise specific Demand Set (s)	Include in report	Locked
[4] Junction 3			✓	D4		✓	

Demand Set Details

Year	Scenario	Time period	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2028	DS	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	75	75	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
1x			
2			1
2x			
3			1
3x			
4			1
4x			
9			1
10			1
11			1
12			1
13			1
14			1
15			1
16			1
17			1
18			1
19			1
20			1
22			1
23			1
24			
25			
27			1
28			1
29			1
30			1
31			1
32			
33			1
34			
35			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1			✓	25.15	✓	Sum of lanes	2055	✓		Normal	
1x	1			✓	84.51						Normal	
2	1			✓	23.79	✓	Sum of lanes	1958	✓		Normal	
2x	1			✓	82.01						Normal	
3	1			✓	24.27	✓	Sum of lanes	1923	✓		Normal	
3x	1			✓	93.18						Normal	
4	1				31.00	✓	Sum of lanes	1951	✓		Normal, Bus	
4x	1			✓	80.19						Normal	
9	1			✓	25.82	✓	Sum of lanes	1813	✓		Normal	
10	1				7.00	✓	Sum of lanes	1903			Normal	
11	1				7.00	✓	Sum of lanes	1750			Normal	
12	1				16.00	✓	Sum of lanes	1872			Normal	
13	1			✓	25.04	✓	Sum of lanes	1920	✓		Normal	
14	1				6.00	✓	Sum of lanes	1964			Normal	
15	1				6.00	✓	Sum of lanes	1825			Normal	
16	1				31.00	✓	Sum of lanes	1853			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1721	✓		Normal, Bus	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2027			Normal	
22	1			✓	24.94	✓	Sum of lanes	2055	✓		Normal	
23	1			✓	23.88	✓	Sum of lanes	1747	✓		Normal, Bus	
24	1			✓	88.54						Bus	
25	1			✓	88.78						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal, Bus	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	7.85	✓	Sum of lanes	1800			Normal	
30	1			✓	7.31	✓	Sum of lanes	1800			Normal	
31	1			✓	24.32	✓	Sum of lanes	1800	✓		Normal	
32	1			✓	66.53						Bus	
33	1			✓	24.62	✓	Sum of lanes	1800	✓		Normal	
34	1			✓	89.20						Bus	
35	1			✓	20.17						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.26		1958
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	21.87		1923
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	28.01		1951
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	22.36	✓	1813
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	18.84		1903
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	15.95	✓	1750
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	65.69	✓	1872
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	13	25.38	✓	1920
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	32.26		1964
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.59	✓	1825
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	44.60	✓	1853
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	12.05	✓	1721
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	89	97.49		2027
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.96	✓	1747
24	1	1	(untitled)											
25	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800
31	1	1	(untitled)											1800
32	1	1	(untitled)											
33	1	1	(untitled)											1800
34	1	1	(untitled)											
35	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		4.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		4.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		4.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
22	1	NetworkDefault	100	100	100		4.00	
23	1	NetworkDefault	100	100	100		4.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	
31	1	NetworkDefault	100	100	100		4.00	
32	1	NetworkDefault	100	100	100		0.00	
33	1	NetworkDefault	100	100	100		4.00	
34	1	NetworkDefault	100	100	100		0.00	
35	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	365	365	
1x	1	771	771	
2	1	145	145	
2x	1	1249	1249	
3	1	357	357	
3x	1	674	674	
4	1	98	98	0
4x	1	813	813	
9	1	207	207	
10	1	312	312	
11	1	390	390	
12	1	701	701	
13	1	523	523	
14	1	357	357	
15	1	588	588	
16	1	945	945	
17	1	685	685	
18	1	169	169	0
19	1	98	98	
20	1	770	770	
22	1	553	553	
23	1	211	211	0
24	1	0		0
25	1	0		0
27	1	764	764	0
28	1	145	145	
29	1	909	909	
30	1	952	952	
31	1	129	129	
32	1	0		0
33	1	66	66	
34	1	223		0
35	1	85	85	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	K		0	0
2	1	1	A		0	0
3	1	1	D		0	0
4	1	1	G		0	0
9	1	1	L		0	0
13	1	1	E		0	0
17	1	1	H		0	0
18	1	1	I		0	0
22	1	1	B		0	0
23	1	1	C		0	0
31	1	1	J		0	0
33	1	1	F		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
12	1	1.92	30.00
16	1	3.72	30.00
29	1	1.00	30.00
30	1	1.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.02	30.00		✓	Offside	18.84
1x	1	1	2/1	1x/1	10.14	30.00		✓	Offside	30.26
2	1	1	28/1	2/1	2.86	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	9.84	30.00		✓	Offside	21.87
3	1	1	14/1	3/1	2.91	30.00		✓	Nearside	32.26
3x	1	1	4/1	3x/1	11.18	30.00		✓	Offside	28.98
4	1	1	19/1	4/1	3.72	30.00	5.00	✓	Straight	Straight Movement
4x	1	1	13/1	4x/1	9.62	30.00		✓	Nearside	25.38
9	1	1	11/1	9/1	3.10	30.00		✓	Offside	15.95
10	1	1	12/1	10/1	1.00	30.00		✓	Offside	65.69
11	1	1	12/1	11/1	1.00	30.00		✓	Offside	92.92
13	1	1	15/1	13/1	3.00	30.00		✓	Nearside	30.59
14	1	1	16/1	14/1	1.00	30.00		✓	Nearside	63.19
15	1	1	16/1	15/1	1.00	30.00		✓	Nearside	44.60
17	1	1	20/1	17/1	3.72	30.00		✓	Offside	97.49
18	1	1	20/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Offside	53.08
20	1	1	30/1	20/1	2.28	30.00		✓	Offside	53.43
22	1	1	27/1	22/1	2.99	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	2.87	30.00	5.00	✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00	5.00	✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
31	1	1	10/1	31/1	2.92	30.00		✓	Offside	19.26
32	1	1	18/1	32/1			5.00	✓	Nearside	12.05
33	1	1	15/1	33/1	2.95	30.00		✓	Nearside	34.90
34	1	1	23/1	34/1			5.00	✓	Nearside	13.96
35	1	1	30/1	35/1	2.42	30.00		✓	Offside	40.88
1	1	2	11/1	1/1	3.02	30.00		✓	Offside	15.98
1x	1	2	13/1	1x/1	10.14	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	9.84	30.00		✓	Nearside	22.36
3x	1	2	23/1	3x/1	11.18	30.00		✓	Nearside	14.42
4x	1	2	22/1	4x/1	9.62	30.00		✓	Straight	Straight Movement
18	1	2	35/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
34	1	2	4/1	34/1			5.00	✓	Offside	28.01
1x	1	3	18/1	1x/1	10.14	30.00		✓	Nearside	13.24
2x	1	3	17/1	2x/1	9.84	30.00		✓	Straight	Straight Movement
3x	1	3	1/1	3x/1	11.18	30.00		✓	Straight	Straight Movement
4x	1	3	31/1	4x/1	9.62	30.00		✓	Offside	21.85
		4	33/1	4x/1	9.62	30.00		✓	Nearside	22.13

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	M	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Limit paths by length	Path length limit multiplier	Limit paths by number	Limit paths by flow
1	(untitled)	✓	Path Equalisation			✓		✓	1.25		

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	207	365	129	0	0	0	0
	2	145	0	211	553	0	0	0	0
	3	457	357	0	131	0	0	0	0
	4	169	685	98	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1, 32/1	#0000FF
	2	(untitled)	29/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1, 34/1	#FF0000
	4	(untitled)	30/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	22		1	4	12/1, 10/1, 31/1, 4x/1	Normal	129
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	207
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	357
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	66
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	457
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	145
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	98
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	685
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	85
	42		4	1	30/1, 35/1, 18/1, 1x/1	Normal	85
	43		3	4	16/1, 15/1, 33/1, 4x/1	Normal	66
	44		2	3	29/1, 27/1, 23/1, 3x/1	Normal	211
	45		2	4	29/1, 27/1, 22/1, 4x/1	Normal	553
	46		1	3	12/1, 10/1, 1/1, 3x/1	Normal	183
	47		1	3	12/1, 11/1, 1/1, 3x/1	Normal	183

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		9	75

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A		7	0	0	Unknown	
	B		7	0	0	Unknown	
	C		7	0	0	Unknown	
	D		7	0	0	Unknown	
	E		7	0	0	Unknown	
	F		7	0	0	Unknown	
	G		7	0	0	Unknown	
	H		7	0	0	Unknown	
	I		7	0	0	Unknown	
	J		7	0	0	Unknown	
	K		7	0	0	Unknown	
	L		7	0	0	Unknown	
	M		7	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	K, E, L, F	1
	2	L, J, D, F	1
	3	B, H, C, I	1
	4	A, C, I, G	1
	5	M	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	75	
	2	(untitled)		Single	1, 2, 3, 5, 4	76	
	3	(untitled)		Single	1, 2, 4, 3, 5	77	
	4	(untitled)		Single	1, 2, 4, 5, 3	77	
	5	(untitled)		Single	1, 2, 5, 3, 4	75	
	6	(untitled)		Single	1, 2, 5, 4, 3	76	
	7	(untitled)		Single	1, 3, 2, 4, 5	79	
	8	(untitled)		Single	1, 3, 2, 5, 4	78	
	9	(untitled)		Single	1, 3, 4, 2, 5	75	
	10	(untitled)		Single	1, 3, 4, 5, 2	75	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F	G	H	I	J	K	L	M
A				5	5			5		6	5		10
B				5	6	6	5			5	5		10
C				5	6	6					5		10
D	6	5	5				5	5			5		9
E	5	5	5				5	6	8	6			10
F		5	5										8
G		6		6	5					5	5		10
H	5			5	5					5	5	6	10
I					5					5	6	6	10
J	5	5			5		6	5	5				9
K	5	6	8	5			5	5	5				10
L							5	5					8
M	14	14	14	14	14	14	14	14	14	14	6	14	

Banned Stage transitions for Controller Stream 1

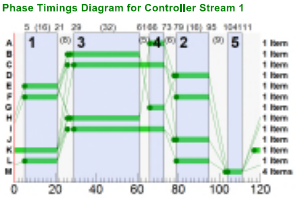
From \ To	1	2	3	4	5
1					
2					
3					
4					
5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1			Green Period 2		
					Start	End	Duration	Start	End	Duration
1	1	1	1	K	117	21	24			
2	1	1	1	A	66	73	7			
3	1	1	1	D	79	95	16			
4	1	1	1	G	66	73	7			
9	1	1	1	L	79	95	16	5	21	16
13	1	1	1	E	5	21	16			
17	1	1	1	H	27	61	34			
18	1	1	1	I	29	73	44			
22	1	1	1	B	27	61	34			
23	1	1	1	C	29	73	44			
31	1	1	1	J	79	95	16			
33	1	1	1	F	79	95	16	5	21	16

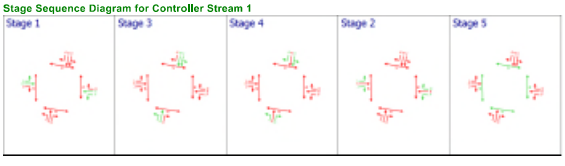
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	85	5	366	2055	24	68.26	13.98	349.47	98.54	5.17	103.70
	1x	1	0	Unrestricted	538	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	111	-19	145	1958	7	302.73	14.48	361.94	173.14	4.00	177.15
	2x	1	0	Unrestricted	1079	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	131	-31	357	1923	16	481.06	52.81	1320.32	677.41	10.95	688.36
	3x	1	0	Unrestricted	675	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	75	19	98	1951	7	93.10	4.22	84.42	35.99	1.55	37.53
	4x	1	0	Unrestricted	782	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	40	123	207	1813	32	21.61	3.82	95.39	17.64	2.12	19.76
	10	1	16	449	312	1903	120	0.19	0.02	1.61	0.23	0.00	0.23
	11	1	22	304	390	1750	120	0.29	0.03	3.19	0.45	0.00	0.45
	12	1	38	140	702	1872	120	0.58	0.11	5.62	1.60	0.00	1.60
	13	1	192	-53	523	1920	16	894.33	135.03	3375.66	1844.95	16.17	1861.13
	14	1	18	395	357	1964	120	0.20	0.02	2.02	0.29	0.00	0.29
	15	1	32	179	589	1825	120	0.47	0.08	7.68	1.09	0.00	1.09
	16	1	51	76	946	1853	120	1.01	0.27	5.32	3.77	0.00	3.77
	17	1	114	-21	685	2055	34	278.94	65.81	1316.27	753.69	18.42	772.11
	18	1	26	242	170	1721	44	27.01	3.97	79.33	18.11	1.47	19.58
	19	1	5	1787	98	2055	120	0.04	0.00	0.04	0.02	0.00	0.02
	20	1	38	137	770	2027	120	0.54	0.12	3.88	1.65	0.00	1.65
	22	1	92	-2	553	2055	34	70.26	22.28	557.10	153.25	8.17	161.42
	23	1	32	179	211	1747	44	27.97	5.06	126.46	23.28	1.87	25.15
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	37	142	764	2055	120	0.52	0.11	3.66	1.56	0.00	1.56
	28	1	7	1176	145	2055	120	0.07	0.00	0.09	0.04	0.00	0.04
	29	1	51	78	909	1800	120	1.02	0.26	18.85	3.65	0.00	3.65
	30	1	53	70	953	1800	120	1.12	0.30	23.38	4.22	0.00	4.22
	31	1	51	78	129	1800	16	54.76	4.20	104.94	27.86	1.58	29.43
	32	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	33	1	13	595	66	1800	32	18.24	1.09	27.28	4.75	0.60	5.35
	34	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	35	1	0	Unrestricted	85	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	(ALL)	(ALL)	0	0	11000	7	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	38.3	86.2	71.0	0.0	0.0	0.0	0.0
	2	320.1	0.0	46.8	87.7	0.0	0.0	0.0	0.0
	3	913.7	499.7	0.0	475.1	0.0	0.0	0.0	0.0
	4	45.6	297.5	112.4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
22	1	4	129		70.98		127.50	0.00	0.00	0.00	129	70.98	127.50
24	1	2	207		38.34		130.83	0.00	0.00	0.00	207	38.34	130.83
26	3	2	357		499.75		143.28	0.00	0.00	0.00	357	499.75	143.28
27	3	4	66		913.16		142.22	0.00	0.00	0.00	66	913.16	142.22
28	3	1	457		913.68		146.54	0.00	0.00	0.00	457	913.68	146.54
34	2	1	145		320.09		135.15	0.00	0.00	0.00	145	320.09	135.15
35	4	3	98		112.45		150.49	0.00	0.00	0.00	98	112.45	150.49
36	4	2	685		297.45		139.32	0.00	0.00	0.00	685	297.45	139.32
37	4	1	85		45.82		141.82	0.00	0.00	0.00	85	45.82	141.82
42	4	1	85		45.41		142.99	0.00	0.00	0.00	85	45.41	142.99
43	3	4	66		37.02		141.80	0.00	0.00	0.00	66	37.02	141.80
44	2	3	211		46.83		143.91	0.00	0.00	0.00	211	46.83	143.91
45	2	4	553		87.69		131.97	0.00	0.00	0.00	553	87.69	131.97
46	1	3	183		86.14		141.33	0.00	0.00	0.00	183	86.14	141.33
47	1	3	183		86.25		141.33	0.00	0.00	0.00	183	86.25	141.33

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	K	366 <	2055	24	85	5	71.27	68.26	112.55	13.98 +	100
1x	1					538	Unrestricted	120	0	Unrestricted	10.14	0.00	0.00	0.00	100
2	1		1	1	A	145 <	1958	7	111	-19	305.58	302.73	244.52	14.48 +	100
2x	1					1079	Unrestricted	120	0	Unrestricted	9.84	0.00	0.00	0.00	100
3	1		1	1	D	357 <	1923	16	131	-31	483.97	481.06	320.49	52.81 +	100
3x	1					675	Unrestricted	120	0	Unrestricted	11.18	0.00	0.00	0.00	100
4	1 NB		1	1	G	98	1951	7	75	19	96.82	93.10	125.85	4.22	100
4x	1					782	Unrestricted	120	0	Unrestricted	9.62	0.00	0.00	0.00	100
9	1		1	1	L	207	1813	32	40	123	24.71	21.61	81.70	3.82	100
10	1		1			312	1903	120	16	449	1.19	0.19	0.00	0.02	100
11	1		1			390	1750	120	22	304	1.29	0.29	0.00	0.03	100
12	1		1			702	1872	120	38	140	2.50	0.58	0.00	0.11	100
13	1		1	1	E	523 <	1920	16	192	-53	897.34	894.33	474.21	135.03 +	100
14	1		1			357	1964	120	18	395	1.20	0.20	0.00	0.02	100
15	1		1			589	1825	120	32	179	1.47	0.47	0.00	0.08	100
16	1		1			946	1853	120	51	76	4.73	1.01	0.00	0.27	100
17	1		1	1	H	685 <	2055	34	114	-21	282.66	278.94	245.10	65.81 +	100
18	1 NB		1	1	I	170	1721	44	26	242	30.73	27.01	68.77	3.97	100
19	1		1			98	2055	120	5	1787	2.32	0.04	0.00	0.00	100
20	1		1			770	2027	120	38	137	2.82	0.54	0.00	0.12	100
22	1		1	1	B	553 <	2055	34	92	-2	73.25	70.26	117.67	22.28 +	100
23	1 NB		1	1	C	211 <	1747	44	32	179	30.83	27.97	70.71	5.06 +	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1 NB		1			764	2055	120	37	142	2.80	0.52	0.00	0.11	100
28	1		1			145	2055	120	7	1176	2.35	0.07	0.00	0.00	100
29	1		1			909	1800	120	51	78	2.02	1.02	0.00	0.26	100
30	1		1			953	1800	120	53	70	2.12	1.12	0.00	0.30	100
31	1		1	1	J	129 <	1800	16	51	78	57.68	54.76	96.54	4.20 +	100
32	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
33	1		1	1	F	66	1800	32	13	595	21.19	18.24	72.81	1.09	100
34	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
35	1					85	Unrestricted	120	0	Unrestricted	2.42	0.00	0.00	0.00	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	M	0	11000	7	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	453.20	286.19	1.58	270.93	3847.19	72.05	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	453.20	286.19	1.58	270.93	3847.19	72.05	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 35	No traffic node specified for arm(s): 35
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 32 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 32/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 34 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 34/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	4047.55	280.01	177.95	13/1	5	12	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Specific Demand Set (s)	Optimise specific Demand Set (s)	Include in report	Locked
[5] Junction 3			✓	D5		✓	

Demand Set Details

Year	Scenario	Time period	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2043	DN	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	75	75	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
1x			
2			1
2x			
3			1
3x			
4			1
4x			
9			1
10			1
11			1
12			1
13			1
14			1
15			1
16			1
17			1
18			1
19			1
20			1
22			1
23			1
24			
25			
27			1
28			1
29			1
30			1
31			1
32			
33			1
34			
35			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1			✓	25.15	✓	Sum of lanes	2055	✓		Normal	
1x	1			✓	84.51						Normal	
2	1			✓	23.79	✓	Sum of lanes	1958	✓		Normal	
2x	1			✓	82.01						Normal	
3	1			✓	24.27	✓	Sum of lanes	1923	✓		Normal	
3x	1			✓	93.18						Normal	
4	1				31.00	✓	Sum of lanes	1951	✓		Normal, Bus	
4x	1			✓	80.19						Normal	
9	1			✓	25.82	✓	Sum of lanes	1813	✓		Normal	
10	1				7.00	✓	Sum of lanes	1903			Normal	
11	1				7.00	✓	Sum of lanes	1750			Normal	
12	1				16.00	✓	Sum of lanes	1872			Normal	
13	1			✓	25.04	✓	Sum of lanes	1882	✓		Normal	
14	1				6.00	✓	Sum of lanes	1964			Normal	
15	1				6.00	✓	Sum of lanes	1825			Normal	
16	1				31.00	✓	Sum of lanes	1853			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1721	✓		Normal, Bus	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2027			Normal	
22	1			✓	24.94	✓	Sum of lanes	2055	✓		Normal	
23	1			✓	23.88	✓	Sum of lanes	1747	✓		Normal, Bus	
24	1			✓	88.54						Bus	
25	1			✓	88.78						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal, Bus	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	7.85	✓	Sum of lanes	1800			Normal	
30	1			✓	7.31	✓	Sum of lanes	1800			Normal	
31	1			✓	24.32	✓	Sum of lanes	1800	✓		Normal	
32	1			✓	66.53						Bus	
33	1			✓	24.62	✓	Sum of lanes	1800	✓		Normal	
34	1			✓	89.20						Bus	
35	1			✓	20.17						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.26		1958
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	21.87		1923
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	28.01		1951
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	22.36	✓	1813
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	18.84		1903
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	15.95	✓	1750
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	65.69	✓	1872
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	48	25.38	✓	1882
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	32.26		1964
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.59	✓	1825
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	44.60	✓	1853
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	12.05	✓	1721
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	90	97.49		2027
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.96	✓	1747
24	1	1	(untitled)											
25	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800
31	1	1	(untitled)											1800
32	1	1	(untitled)											
33	1	1	(untitled)											1800
34	1	1	(untitled)											
35	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		4.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		4.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		4.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
22	1	NetworkDefault	100	100	100		4.00	
23	1	NetworkDefault	100	100	100		4.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	
31	1	NetworkDefault	100	100	100		4.00	
32	1	NetworkDefault	100	100	100		0.00	
33	1	NetworkDefault	100	100	100		4.00	
34	1	NetworkDefault	100	100	100		0.00	
35	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	524	524	
1x	1	441	441	
2	1	107	107	
2x	1	937	937	
3	1	102	102	
3x	1	884	884	
4	1	247	247	0
4x	1	1186	1186	
9	1	66	66	
10	1	290	290	
11	1	328	328	
12	1	618	618	
13	1	307	307	
14	1	102	102	
15	1	454	454	
16	1	556	556	
17	1	769	769	
18	1	175	175	0
19	1	247	247	
20	1	857	857	
22	1	863	863	
23	1	113	113	0
24	1	0		0
25	1	0		0
27	1	976	976	0
28	1	107	107	
29	1	1083	1083	
30	1	1191	1191	
31	1	28	28	
32	1	0		0
33	1	148	148	
34	1	223		0
35	1	88	88	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	K		0	0
2	1	1	A		0	0
3	1	1	D		0	0
4	1	1	G		0	0
9	1	1	L		0	0
13	1	1	E		0	0
17	1	1	H		0	0
18	1	1	I		0	0
22	1	1	B		0	0
23	1	1	C		0	0
31	1	1	J		0	0
33	1	1	F		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
12	1	1.92	30.00
16	1	3.72	30.00
29	1	1.00	30.00
30	1	1.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.02	30.00		✓	Offside	18.84
1x	1	1	2/1	1x/1	10.14	30.00		✓	Offside	30.26
2	1	1	28/1	2/1	2.86	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	9.84	30.00		✓	Offside	21.87
3	1	1	14/1	3/1	2.91	30.00		✓	Nearside	32.26
3x	1	1	4/1	3x/1	11.18	30.00		✓	Offside	28.98
4	1	1	19/1	4/1	3.72	30.00	5.00	✓	Straight	Straight Movement
4x	1	1	13/1	4x/1	9.62	30.00		✓	Nearside	25.38
9	1	1	11/1	9/1	3.10	30.00		✓	Offside	15.95
10	1	1	12/1	10/1	1.00	30.00		✓	Offside	65.69
11	1	1	12/1	11/1	1.00	30.00		✓	Offside	92.92
13	1	1	15/1	13/1	3.00	30.00		✓	Nearside	30.59
14	1	1	16/1	14/1	1.00	30.00		✓	Nearside	63.19
15	1	1	16/1	15/1	1.00	30.00		✓	Nearside	44.60
17	1	1	20/1	17/1	3.72	30.00		✓	Offside	97.49
18	1	1	20/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Offside	53.08
20	1	1	30/1	20/1	2.28	30.00		✓	Offside	53.43
22	1	1	27/1	22/1	2.99	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	2.87	30.00	5.00	✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00	5.00	✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
31	1	1	10/1	31/1	2.92	30.00		✓	Offside	19.26
32	1	1	18/1	32/1			5.00	✓	Nearside	12.05
33	1	1	15/1	33/1	2.95	30.00		✓	Nearside	34.90
34	1	1	23/1	34/1			5.00	✓	Nearside	13.96
35	1	1	30/1	35/1	2.42	30.00		✓	Offside	40.88
1	1	2	11/1	1/1	3.02	30.00		✓	Offside	15.98
1x	1	2	13/1	1x/1	10.14	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	9.84	30.00		✓	Nearside	22.36
3x	1	2	23/1	3x/1	11.18	30.00		✓	Nearside	14.42
4x	1	2	22/1	4x/1	9.62	30.00		✓	Straight	Straight Movement
18	1	2	35/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
34	1	2	4/1	34/1			5.00	✓	Offside	28.01
1x	1	3	18/1	1x/1	10.14	30.00		✓	Nearside	13.24
2x	1	3	17/1	2x/1	9.84	30.00		✓	Straight	Straight Movement
3x	1	3	1/1	3x/1	11.18	30.00		✓	Straight	Straight Movement
4x	1	3	31/1	4x/1	9.62	30.00		✓	Offside	21.85
		4	33/1	4x/1	9.62	30.00		✓	Nearside	22.13

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	M	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Limit paths by length	Path length limit multiplier	Limit paths by number	Limit paths by flow
1	(untitled)	✓	Path Equalisation			✓		✓	1.25		

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	66	524	28	0	0	0	0
	2	107	0	113	863	0	0	0	0
	3	159	102	0	295	0	0	0	0
	4	175	769	247	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1, 32/1	#0000FF
	2	(untitled)	29/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1, 34/1	#FF0000
	4	(untitled)	30/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	22		1	4	12/1, 10/1, 31/1, 4x/1	Normal	28
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	66
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	102
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	148
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	159
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	107
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	247
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	769
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	88
	42		4	1	30/1, 35/1, 18/1, 1x/1	Normal	88
	43		3	4	16/1, 15/1, 33/1, 4x/1	Normal	148
	44		2	3	29/1, 27/1, 23/1, 3x/1	Normal	113
	45		2	4	29/1, 27/1, 22/1, 4x/1	Normal	863
	46		1	3	12/1, 10/1, 1/1, 3x/1	Normal	262
	47		1	3	12/1, 11/1, 1/1, 3x/1	Normal	262

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		9	75

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A		7	0	0	Unknown	
	B		7	0	0	Unknown	
	C		7	0	0	Unknown	
	D		7	0	0	Unknown	
	E		7	0	0	Unknown	
	F		7	0	0	Unknown	
	G		7	0	0	Unknown	
	H		7	0	0	Unknown	
	I		7	0	0	Unknown	
	J		7	0	0	Unknown	
	K		7	0	0	Unknown	
	L		7	0	0	Unknown	
	M		7	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	K, E, L, F	1
	2	L, J, D, F	1
	3	B, H, C, I	1
	4	A, C, I, G	1
	5	M	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	75	
	2	(untitled)		Single	1, 2, 3, 5, 4	76	
	3	(untitled)		Single	1, 2, 4, 3, 5	77	
	4	(untitled)		Single	1, 2, 4, 5, 3	77	
	5	(untitled)		Single	1, 2, 5, 3, 4	75	
	6	(untitled)		Single	1, 2, 5, 4, 3	76	
	7	(untitled)		Single	1, 3, 2, 4, 5	79	
	8	(untitled)		Single	1, 3, 2, 5, 4	78	
	9	(untitled)		Single	1, 3, 4, 2, 5	75	
	10	(untitled)		Single	1, 3, 4, 5, 2	75	

Intergreen Matrix for Controller Stream 1

		To											
		A	B	C	D	E	F	G	H	I	J	K	L	M
From	A				5	5			5		6	5		10
	B				5	6	6	5			5	5		10
	C				5	6	6					5		10
	D	6	5	5				5	5			5		9
	E	5	5	5				5	6	8	6			10
	F		5	5										8
	G		6		6	5					5	5		10
	H	5			5	5					5	5	6	10
	I					5					5	6	6	10
	J	5	5			5		6	5	5				9
	K	5	6	8	5			5	5	5				10
	L								5	5				8
	M	14	14	14	14	14	14	14	14	14	14	6	14	

Banned Stage transitions for Controller Stream 1

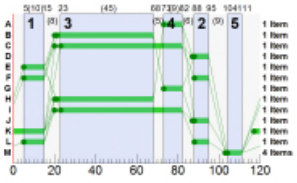
	To					
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1			Green Period 2		
					Start	End	Duration	Start	End	Duration
1	1	1	1	K	117	15	18			
2	1	1	1	A	73	82	9			
3	1	1	1	D	88	95	7			
4	1	1	1	G	73	82	9			
9	1	1	1	L	88	95	7	5	15	10
13	1	1	1	E	5	15	10			
17	1	1	1	H	21	68	47			
18	1	1	1	I	23	82	59			
22	1	1	1	B	21	68	47			
23	1	1	1	C	23	82	59			
31	1	1	1	J	88	95	7			
33	1	1	1	F	88	95	7	5	15	10

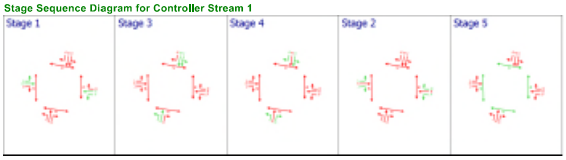
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:00-09:00	1	1	161	-44	524	2055	18	719.18	110.87	2771.81	1486.47	16.47	1502.95
	1x	1	0	Unrestricted	372	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	66	37	107	1958	9	73.47	4.05	101.14	31.01	1.50	32.51
	2x	1	0	Unrestricted	937	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	80	13	102	1923	7	102.26	4.68	116.91	41.14	1.70	42.84
	3x	1	0	Unrestricted	601	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	152	-41	247	1951	9	664.81	48.50	970.08	647.71	7.78	655.49
	4x	1	0	Unrestricted	1081	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	23	291	66	1813	17	27.95	1.39	34.77	7.28	0.72	8.00
	10	1	15	491	290	1903	120	0.17	0.01	1.37	0.19	0.00	0.19
	11	1	19	380	328	1750	120	0.24	0.02	2.16	0.31	0.00	0.31
	12	1	33	173	618	1872	120	0.47	0.08	4.06	1.15	0.00	1.15
	13	1	178	-49	307	1882	10	826.47	73.57	1839.26	1000.81	9.58	1010.39
	14	1	5	1633	102	1964	120	0.05	0.00	0.14	0.02	0.00	0.02
	15	1	25	261	455	1825	120	0.33	0.04	4.14	0.59	0.00	0.59
	16	1	30	199	557	1853	120	0.42	0.06	1.29	0.92	0.00	0.92
	17	1	94	-4	769	2055	47	60.11	29.82	596.38	182.33	10.97	193.31
	18	1	20	340	176	1721	59	17.25	3.25	65.06	11.98	1.20	13.18
	19	1	12	649	247	2055	120	0.12	0.01	0.27	0.12	0.00	0.12
	20	1	42	113	857	2027	120	0.65	0.15	5.16	2.20	0.00	2.20
	22	1	105	-14	863	2055	47	149.71	54.84	1371.04	509.64	18.56	528.20
	23	1	13	596	113	1747	59	16.35	2.02	50.46	7.29	0.74	8.03
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	47	89	976	2055	120	0.79	0.21	7.15	3.05	0.00	3.05
	28	1	5	1629	107	2055	120	0.05	0.00	0.05	0.02	0.00	0.02
	29	1	60	50	1083	1800	120	1.51	0.45	33.20	6.43	0.00	6.43
	30	1	66	36	1192	1800	120	1.95	0.65	50.85	9.18	0.00	9.18
	31	1	23	286	28	1800	7	57.68	0.91	22.85	6.37	0.34	6.71
	32	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	33	1	52	73	148	1800	17	34.12	3.48	87.10	19.92	1.85	21.77
	34	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	35	1	0	Unrestricted	88	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
08:00-09:00	(ALL)	(ALL)	0	0	11000	7	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

	To								
		1	2	3	4	5	6	7	8
From	1	0.0	44.5	737.0	73.8	0.0	0.0	0.0	0.0
	2	91.3	0.0	36.0	167.9	0.0	0.0	0.0	0.0
	3	845.1	120.2	0.0	448.4	0.0	0.0	0.0	0.0
	4	36.7	79.6	685.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
22	1	4	28		73.78		127.50	0.00	0.00	0.00	28	73.78	127.50
24	1	2	66		44.52		130.83	0.00	0.00	0.00	66	44.52	130.83
26	3	2	102		120.20		143.28	0.00	0.00	0.00	102	120.20	143.28
27	3	4	148		844.56		142.22	0.00	0.00	0.00	148	844.56	142.22
28	3	1	159		845.08		146.54	0.00	0.00	0.00	159	845.08	146.54
34	2	1	107		91.30		135.15	0.00	0.00	0.00	107	91.30	135.15
35	4	3	247		685.06		150.49	0.00	0.00	0.00	247	685.06	150.49
36	4	2	769		79.55		139.32	0.00	0.00	0.00	769	79.55	139.32
37	4	1	88		36.99		141.82	0.00	0.00	0.00	88	36.99	141.82
42	4	1	88		36.48		142.99	0.00	0.00	0.00	88	36.48	142.99
43	3	4	148		52.16		141.80	0.00	0.00	0.00	148	52.16	141.80
44	2	3	113		35.98		143.91	0.00	0.00	0.00	113	35.98	143.91
45	2	4	863		167.91		131.97	0.00	0.00	0.00	863	167.91	131.97
46	1	3	262		736.95		141.33	0.00	0.00	0.00	262	736.95	141.33
47	1	3	262		737.02		141.33	0.00	0.00	0.00	262	737.02	141.33

Final Prediction Table

Traffic Stream Results

		SIGNALS				FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	K	524 <	2055	18	161	-44	722.20	719.18	403.75	110.87 +	100
1x	1					372	Unrestricted	120	0	Unrestricted	10.14	0.00	0.00	0.00	100
2	1		1	1	A	107 <	1958	9	66	37	76.32	73.47	111.74	4.05 +	100
2x	1					937	Unrestricted	120	0	Unrestricted	9.84	0.00	0.00	0.00	100
3	1		1	1	D	102 <	1923	7	80	13	105.17	102.26	132.89	4.68 +	100
3x	1					601	Unrestricted	120	0	Unrestricted	11.18	0.00	0.00	0.00	100
4	1 NB		1	1	G	247 <	1951	9	152	-41	668.53	664.81	381.71	48.50 +	100
4x	1					1081	Unrestricted	120	0	Unrestricted	9.62	0.00	0.00	0.00	100
9	1		1	1	L	66	1813	17	23	291	31.05	27.95	87.59	1.39	100
10	1		1			290	1903	120	15	491	1.17	0.17	0.00	0.01	100
11	1		1			328	1750	120	19	380	1.24	0.24	0.00	0.02	100
12	1		1			618	1872	120	33	173	2.39	0.47	0.00	0.08	100
13	1		1	1	E	307 <	1882	10	178	-49	829.48	826.47	442.99	73.57 +	100
14	1		1			102	1964	120	5	1633	1.05	0.05	0.00	0.00	100
15	1		1			455	1825	120	25	261	1.33	0.33	0.00	0.04	100
16	1		1			557	1853	120	30	199	4.14	0.42	0.00	0.06	100
17	1		1	1	H	769 <	2055	47	94	-4	83.83	80.11	113.80	29.82 +	100
18	1 NB		1	1	I	176	1721	59	20	340	20.97	17.25	54.45	3.25	100
19	1		1			247	2055	120	12	649	2.40	0.12	0.00	0.01	100
20	1		1			857	2027	120	42	113	2.93	0.65	0.00	0.15	100
22	1		1	1	B	863 <	2055	47	105	-14	152.71	149.71	180.08	54.84 +	100
23	1 NB		1	1	C	113	1747	59	13	596	19.22	16.35	52.38	2.02	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1 NB		1			976	2055	120	47	89	3.07	0.79	0.00	0.21	100
28	1		1			107	2055	120	5	1629	2.33	0.05	0.00	0.00	100
29	1		1			1083	1800	120	60	50	2.51	1.51	0.00	0.45	100
30	1		1			1192	1800	120	66	36	2.95	1.95	0.00	0.65	100
31	1		1	1	J	28	1800	7	23	286	60.60	57.68	96.93	0.91	100
32	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
33	1		1	1	F	148	1800	17	52	73	37.07	34.12	99.71	3.48	100
34	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
35	1					88	Unrestricted	120	0	Unrestricted	2.42	0.00	0.00	0.00	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	P
(ALL)	(ALL)	(untitled)		1	M	0	11000	7	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	439.45	294.79	1.49	280.01	3976.12	71.43	0.00
Bus Cycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	439.45	294.79	1.49	280.01	3976.12	71.43	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 35	No traffic node specified for arm(s): 35
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 32 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 32/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 34 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 34/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	7577.74	526.06	180.07	17/1	6	15	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Specific Demand Set (s)	Optimise specific Demand Set (s)	Include in report	Locked
[6] Junction 3			✓	D6		✓	

Demand Set Details

Year	Scenario	Time period	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2043	DN	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	75	75	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
1x			
2			1
2x			
3			1
3x			
4			1
4x			
9			1
10			1
11			1
12			1
13			1
14			1
15			1
16			1
17			1
18			1
19			1
20			1
22			1
23			1
24			
25			
27			1
28			1
29			1
30			1
31			1
32			
33			1
34			
35			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1			✓	25.15	✓	Sum of lanes	2055	✓		Normal	
1x	1			✓	84.51						Normal	
2	1			✓	23.79	✓	Sum of lanes	1958	✓		Normal	
2x	1			✓	82.01						Normal	
3	1			✓	24.27	✓	Sum of lanes	1923	✓		Normal	
3x	1			✓	93.18						Normal	
4	1				31.00	✓	Sum of lanes	1951	✓		Normal, Bus	
4x	1			✓	80.19						Normal	
9	1			✓	25.82	✓	Sum of lanes	1813	✓		Normal	
10	1				7.00	✓	Sum of lanes	1903			Normal	
11	1				7.00	✓	Sum of lanes	1750			Normal	
12	1				16.00	✓	Sum of lanes	1872			Normal	
13	1			✓	25.04	✓	Sum of lanes	1884	✓		Normal	
14	1				6.00	✓	Sum of lanes	1964			Normal	
15	1				6.00	✓	Sum of lanes	1825			Normal	
16	1				31.00	✓	Sum of lanes	1853			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1721	✓		Normal, Bus	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2025			Normal	
22	1			✓	24.94	✓	Sum of lanes	2055	✓		Normal	
23	1			✓	23.88	✓	Sum of lanes	1747	✓		Normal, Bus	
24	1			✓	88.54						Bus	
25	1			✓	88.78						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal, Bus	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	7.85	✓	Sum of lanes	1800			Normal	
30	1			✓	7.31	✓	Sum of lanes	1800			Normal	
31	1			✓	24.32	✓	Sum of lanes	1800	✓		Normal	
32	1			✓	66.53						Bus	
33	1			✓	24.62	✓	Sum of lanes	1800	✓		Normal	
34	1			✓	89.20						Bus	
35	1			✓	20.17						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.26		1958
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	21.87		1923
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	28.01		1951
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	22.36	✓	1813
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	18.84		1903
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	15.95	✓	1750
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	65.69	✓	1872
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	46	25.38	✓	1884
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	32.26		1964
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.59	✓	1825
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	44.60	✓	1853
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	12.05	✓	1721
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	97	97.49		2025
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.96	✓	1747
24	1	1	(untitled)											
25	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800
31	1	1	(untitled)											1800
32	1	1	(untitled)											
33	1	1	(untitled)											1800
34	1	1	(untitled)											
35	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		4.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		4.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		4.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
22	1	NetworkDefault	100	100	100		4.00	
23	1	NetworkDefault	100	100	100		4.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	
31	1	NetworkDefault	100	100	100		4.00	
32	1	NetworkDefault	100	100	100		0.00	
33	1	NetworkDefault	100	100	100		4.00	
34	1	NetworkDefault	100	100	100		0.00	
35	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	573	573	
1x	1	293	293	
2	1	50	50	
2x	1	1689	1689	
3	1	95	95	
3x	1	799	799	
4	1	183	183	0
4x	1	1187	1187	
9	1	453	453	
10	1	299	299	
11	1	740	740	
12	1	1038	1038	
13	1	328	328	
14	1	95	95	
15	1	480	480	
16	1	575	575	
17	1	1141	1141	
18	1	67	67	0
19	1	183	183	
20	1	1175	1175	
22	1	871	871	
23	1	43	43	0
24	1	0		0
25	1	0		0
27	1	914	914	0
28	1	50	50	
29	1	964	964	
30	1	1391	1391	
31	1	12	12	
32	1	0		0
33	1	152	152	
34	1	223		0
35	1	34	34	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	K		0	0
2	1	1	A		0	0
3	1	1	D		0	0
4	1	1	G		0	0
9	1	1	L		0	0
13	1	1	E		0	0
17	1	1	H		0	0
18	1	1	I		0	0
22	1	1	B		0	0
23	1	1	C		0	0
31	1	1	J		0	0
33	1	1	F		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
12	1	1.92	30.00
16	1	3.72	30.00
29	1	1.00	30.00
30	1	1.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.02	30.00		✓	Offside	16.84
1x	1	1	2/1	1x/1	10.14	30.00		✓	Offside	30.26
2	1	1	28/1	2/1	2.86	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	9.84	30.00		✓	Offside	21.87
3	1	1	14/1	3/1	2.91	30.00		✓	Nearside	32.26
3x	1	1	4/1	3x/1	11.18	30.00		✓	Offside	28.98
4	1	1	19/1	4/1	3.72	30.00	5.00	✓	Straight	Straight Movement
4x	1	1	13/1	4x/1	9.62	30.00		✓	Nearside	25.38
9	1	1	11/1	9/1	3.10	30.00		✓	Offside	15.95
10	1	1	12/1	10/1	1.00	30.00		✓	Offside	65.69
11	1	1	12/1	11/1	1.00	30.00		✓	Offside	92.92
13	1	1	15/1	13/1	3.00	30.00		✓	Nearside	30.59
14	1	1	16/1	14/1	1.00	30.00		✓	Nearside	63.19
15	1	1	16/1	15/1	1.00	30.00		✓	Nearside	44.60
17	1	1	20/1	17/1	3.72	30.00		✓	Offside	97.49
18	1	1	20/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Offside	53.08
20	1	1	30/1	20/1	2.28	30.00		✓	Offside	53.43
22	1	1	27/1	22/1	2.99	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	2.87	30.00	5.00	✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00	5.00	✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
31	1	1	10/1	31/1	2.92	30.00		✓	Offside	19.26
32	1	1	18/1	32/1			5.00	✓	Nearside	12.05
33	1	1	15/1	33/1	2.95	30.00		✓	Nearside	34.90
34	1	1	23/1	34/1			5.00	✓	Nearside	13.96
35	1	1	30/1	35/1	2.42	30.00		✓	Offside	40.88
1	1	2	11/1	1/1	3.02	30.00		✓	Offside	16.98
1x	1	2	13/1	1x/1	10.14	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	9.84	30.00		✓	Nearside	22.36
3x	1	2	23/1	3x/1	11.18	30.00		✓	Nearside	14.42
4x	1	2	22/1	4x/1	9.62	30.00		✓	Straight	Straight Movement
18	1	2	35/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
34	1	2	4/1	34/1			5.00	✓	Offside	28.01
1x	1	3	18/1	1x/1	10.14	30.00		✓	Nearside	13.24
2x	1	3	17/1	2x/1	9.84	30.00		✓	Straight	Straight Movement
3x	1	3	1/1	3x/1	11.18	30.00		✓	Straight	Straight Movement
4x	1	3	31/1	4x/1	9.62	30.00		✓	Offside	21.85
		4	33/1	4x/1	9.62	30.00		✓	Nearside	22.13

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	M	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Limit paths by length	Path length limit multiplier	Limit paths by number	Limit paths by flow
1	(untitled)	✓	Path Equalisation			✓		✓	1.25		

Normal Input Flows (PCU/hr)

From \ To	1	2	3	4	5	6	7	8
1	0	453	573	12	0	0	0	0
2	50	0	43	871	0	0	0	0
3	176	95	0	304	0	0	0	0
4	67	1141	183	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1, 32/1	#0000FF
	2	(untitled)	29/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1, 34/1	#FF0000
	4	(untitled)	30/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	22		1	4	12/1, 10/1, 31/1, 4x/1	Normal	12
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	453
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	95
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	152
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	176
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	50
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	183
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	1141
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	34
	42		4	1	30/1, 35/1, 18/1, 1x/1	Normal	34
	43		3	4	16/1, 15/1, 33/1, 4x/1	Normal	152
	44		2	3	29/1, 27/1, 23/1, 3x/1	Normal	43
	45		2	4	29/1, 27/1, 22/1, 4x/1	Normal	871
	46		1	3	12/1, 10/1, 1/1, 3x/1	Normal	287
	47		1	3	12/1, 11/1, 1/1, 3x/1	Normal	287

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		9	75

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A		7	0	0	Unknown	
	B		7	0	0	Unknown	
	C		7	0	0	Unknown	
	D		7	0	0	Unknown	
	E		7	0	0	Unknown	
	F		7	0	0	Unknown	
	G		7	0	0	Unknown	
	H		7	0	0	Unknown	
	I		7	0	0	Unknown	
	J		7	0	0	Unknown	
	K		7	0	0	Unknown	
	L		7	0	0	Unknown	
	M		7	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	K, E, L, F	1
	2	L, J, D, F	1
	3	B, H, C, I	1
	4	A, C, I, G	1
	5	M	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	75	
	2	(untitled)		Single	1, 2, 3, 5, 4	76	
	3	(untitled)		Single	1, 2, 4, 3, 5	77	
	4	(untitled)		Single	1, 2, 4, 5, 3	77	
	5	(untitled)		Single	1, 2, 5, 3, 4	75	
	6	(untitled)		Single	1, 2, 5, 4, 3	76	
	7	(untitled)		Single	1, 3, 2, 4, 5	79	
	8	(untitled)		Single	1, 3, 2, 5, 4	78	
	9	(untitled)		Single	1, 3, 4, 2, 5	75	
	10	(untitled)		Single	1, 3, 4, 5, 2	75	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F	G	H	I	J	K	L	M
A				5	5			5		6	5		10
B				5	6	6	5			5	5		10
C				5	6	6					5		10
D	6	5	5				5	5			5		9
E	5	5	5				5	6	6				10
F		5	5										8
G		6		6	5					5	5		10
H	5			5	5					5	5	6	10
I					5					5	6	6	10
J	5	5			5		6	5	5				9
K	5	6	8	5			5	5	5				10
L								5	5				8
M	14	14	14	14	14	14	14	14	14	14	6	14	

Banned Stage transitions for Controller Stream 1

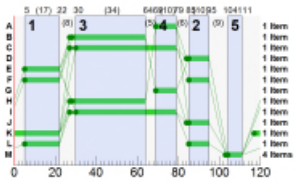
From \ To	1	2	3	4	5
1					
2					
3					
4					
5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1			Green Period 2		
					Start	End	Duration	Start	End	Duration
1	1	1	1	K	117	22	25			
2	1	1	1	A	69	79	10			
3	1	1	1	D	85	95	10			
4	1	1	1	G	69	79	10			
9	1	1	1	L	85	95	10	5	22	17
13	1	1	1	E	5	22	17			
17	1	1	1	H	28	64	36			
18	1	1	1	I	30	79	49			
22	1	1	1	B	28	64	36			
23	1	1	1	C	30	79	49			
31	1	1	1	J	85	95	10			
33	1	1	1	F	85	95	10	5	22	17

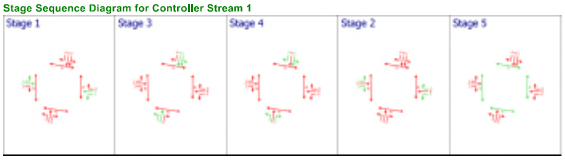
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	129	-30	574	2055	25	450.62	80.75	2018.84	1020.25	17.41	1037.66
	1x	1	0	Unrestricted	270	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	28	223	50	1958	10	54.67	1.60	39.88	10.78	0.59	11.38
	2x	1	0	Unrestricted	1167	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	54	67	95	1923	10	63.79	3.32	82.92	23.80	1.23	25.14
	3x	1	0	Unrestricted	667	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	102	-12	183	1951	10	199.09	13.32	266.49	143.71	4.32	148.03
	4x	1	0	Unrestricted	929	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	103	-13	453	1813	27	148.62	24.12	602.93	265.56	9.81	275.37
	10	1	16	473	299	1903	120	0.18	0.01	1.46	0.21	0.00	0.21
	11	1	42	113	740	1750	120	0.75	0.15	15.47	2.20	0.00	2.20
	12	1	56	62	1039	1872	120	1.20	0.35	17.27	4.90	0.00	4.90
	13	1	116	-22	328	1884	17	322.49	34.72	868.02	417.23	9.19	426.43
	14	1	5	1761	95	1964	120	0.05	0.00	0.12	0.02	0.00	0.02
	15	1	26	242	480	1825	120	0.35	0.05	4.69	0.67	0.00	0.67
	16	1	31	190	575	1853	120	0.44	0.07	1.40	0.99	0.00	0.99
	17	1	180	-50	1141	2055	36	825.42	275.25	5505.06	3714.89	35.55	3750.44
	18	1	9	849	68	1721	49	21.53	1.36	27.30	5.77	0.51	6.28
	19	1	9	911	183	2055	120	0.09	0.00	0.15	0.06	0.00	0.06
	20	1	58	55	1175	2025	120	1.23	0.40	13.34	5.68	0.00	5.68
	22	1	137	-35	871	2055	36	526.16	140.94	3523.54	1807.67	27.02	1834.70
	23	1	6	1424	43	1747	49	21.12	0.85	21.25	3.58	0.31	3.90
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	44	102	914	2055	120	0.70	0.18	5.93	2.53	0.00	2.53
	28	1	2	3599	50	2055	120	0.02	0.00	0.01	0.00	0.00	0.00
	29	1	54	68	964	1800	120	1.15	0.31	22.58	4.38	0.00	4.38
	30	1	77	16	1392	1800	120	3.38	1.31	102.73	18.54	0.00	18.54
	31	1	7	1138	12	1800	10	50.81	0.37	9.15	2.41	0.14	2.54
	32	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	33	1	35	158	152	1800	27	23.56	2.92	73.06	14.12	1.59	15.71
	34	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	35	1	0	Unrestricted	34	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	(ALL)	(ALL)	0	0	11000	7	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

From \ To	1	2	3	4	5	6	7	8
1	0.0	166.4	469.4	67.6	0.0	0.0	0.0	0.0
2	72.1	0.0	40.3	543.9	0.0	0.0	0.0	0.0
3	341.1	81.7	0.0	191.1	0.0	0.0	0.0	0.0
4	42.7	846.9	220.7	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
22	1	4	12		67.65		127.50	0.00	0.00	0.00	12	67.65	127.50
24	1	2	453		166.43		130.83	0.00	0.00	0.00	453	166.43	130.83
26	3	2	95		81.74		143.28	0.00	0.00	0.00	95	81.74	143.28
27	3	4	152		340.63		142.22	0.00	0.00	0.00	152	340.63	142.22
28	3	1	176		341.15		146.54	0.00	0.00	0.00	176	341.15	146.54
34	2	1	50		72.12		135.15	0.00	0.00	0.00	50	72.12	135.15
35	4	3	183		220.73		150.49	0.00	0.00	0.00	183	220.73	150.49
36	4	2	1141		846.86		139.32	0.00	0.00	0.00	1141	846.86	139.32
37	4	1	34		43.27		141.82	0.00	0.00	0.00	34	43.27	141.82
42	4	1	34		42.19		142.99	0.00	0.00	0.00	34	42.19	142.99
43	3	4	152		41.64		141.80	0.00	0.00	0.00	152	41.64	141.80
44	2	3	43		40.30		143.91	0.00	0.00	0.00	43	40.30	143.91
45	2	4	871		543.90		131.97	0.00	0.00	0.00	871	543.90	131.97
46	1	3	287		469.11		141.33	0.00	0.00	0.00	287	469.11	141.33
47	1	3	287		469.69		141.33	0.00	0.00	0.00	287	469.69	141.33

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	K	574 <	2055	25	129	-30	453.64	450.62	311.92	80.75 +	100
1x	1					270	Unrestricted	120	0	Unrestricted	10.14	0.00	0.00	0.00	100
2	1		1	1	A	50	1958	10	28	223	57.53	54.67	94.70	1.60	100
2x	1					1167	Unrestricted	120	0	Unrestricted	9.84	0.00	0.00	0.00	100
3	1		1	1	D	95	1923	10	54	67	66.70	63.79	103.52	3.32	100
3x	1					667	Unrestricted	120	0	Unrestricted	11.18	0.00	0.00	0.00	100
4	1 NB		1	1	G	183 <	1951	10	102	-12	202.81	199.09	192.74	13.32 +	100
4x	1					929	Unrestricted	120	0	Unrestricted	9.62	0.00	0.00	0.00	100
9	1		1	1	L	453 <	1813	27	103	-13	151.72	148.62	178.61	24.12 +	100
10	1		1			299	1903	120	16	473	1.18	0.18	0.00	0.01	100
11	1		1			740	1750	120	42	113	1.75	0.75	0.00	0.15	100
12	1		1			1039	1872	120	56	62	3.12	1.20	0.00	0.35	100
13	1		1	1	E	328 <	1884	17	116	-22	325.50	322.49	259.41	34.72 +	100
14	1		1			95	1964	120	5	1761	1.05	0.05	0.00	0.00	100
15	1		1			480	1825	120	26	242	1.35	0.35	0.00	0.05	100
16	1		1			575	1853	120	31	190	4.16	0.44	0.00	0.07	100
17	1		1	1	H	1141 <	2055	36	180	-50	829.14	825.42	447.43	275.25 +	100
18	1 NB		1	1	I	68	1721	49	9	849	25.25	21.53	59.23	1.36	100
19	1		1			183	2055	120	9	911	2.37	0.09	0.00	0.00	100
20	1		1			1175	2025	120	58	55	3.51	1.23	0.00	0.40	100
22	1		1	1	B	871 <	2055	36	137	-35	529.15	526.16	340.11	140.94 +	100
23	1 NB		1	1	C	43	1747	49	6	1424	23.98	21.12	58.31	0.85	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1 NB		1			914	2055	120	44	102	2.98	0.70	0.00	0.18	100
28	1		1			50	2055	120	2	3599	2.30	0.02	0.00	0.00	100
29	1		1			964	1800	120	54	68	2.15	1.15	0.00	0.31	100
30	1		1			1392 <	1800	120	77	16	4.38	3.38	0.00	1.31 +	100
31	1		1	1	J	12	1800	10	7	1138	53.73	50.81	90.56	0.37	100
32	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
33	1		1	1	F	152	1800	27	35	158	26.51	23.56	83.34	2.92	100
34	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
35	1					34	Unrestricted	120	0	Unrestricted	2.42	0.00	0.00	0.00	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	M	0	11000	7	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	470,59	541,90	0,87	526,06	7470,06	107,68	0,00
Bus	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Cycle							
Pedestrians	0,00	0,00	0,00	0,00	0,00	0,00	0,00
TOTAL	470,59	541,90	0,87	526,06	7470,06	107,68	0,00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 35	No traffic node specified for arm(s): 35
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 32 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 32/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 34 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 34/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	4618,93	319,49	186,55	13/1	5	12	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Specific Demand Set (s)	Optimise specific Demand Set (s)	Include in report	Locked
[7] Junction 3			✓	D7		✓	

Demand Set Details

Year	Scenario	Time period	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2043	DS	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	75	75	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14,20	2,60	14,20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
1x			
2			1
2x			
3			1
3x			
4			1
4x			
9			1
10			1
11			1
12			1
13			1
14			1
15			1
16			1
17			1
18			1
19			1
20			1
22			1
23			1
24			
25			
27			1
28			1
29			1
30			1
31			1
32			
33			1
34			
35			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1			✓	25,15	✓	Sum of lanes	2055	✓		Normal	
1x	1			✓	84,51						Normal	
2	1			✓	23,79	✓	Sum of lanes	1958	✓		Normal	
2x	1			✓	82,01						Normal	
3	1			✓	24,27	✓	Sum of lanes	1923	✓		Normal	
3x	1			✓	93,18						Normal	
4	1				31,00	✓	Sum of lanes	1951	✓		Normal, Bus	
4x	1			✓	80,19						Normal	
9	1			✓	25,82	✓	Sum of lanes	1813	✓		Normal	
10	1				7,00	✓	Sum of lanes	1903			Normal	
11	1				7,00	✓	Sum of lanes	1750			Normal	
12	1				16,00	✓	Sum of lanes	1872			Normal	
13	1			✓	25,04	✓	Sum of lanes	1883	✓		Normal	
14	1				6,00	✓	Sum of lanes	1964			Normal	
15	1				6,00	✓	Sum of lanes	1825			Normal	
16	1				31,00	✓	Sum of lanes	1853			Normal	
17	1				31,00	✓	Sum of lanes	2055	✓		Normal	
18	1				31,00	✓	Sum of lanes	1721	✓		Normal, Bus	
19	1				19,00	✓	Sum of lanes	2055			Normal	
20	1				19,00	✓	Sum of lanes	2027			Normal	
22	1			✓	24,94	✓	Sum of lanes	2055	✓		Normal	
23	1			✓	23,88	✓	Sum of lanes	1747	✓		Normal, Bus	
24	1			✓	86,54						Bus	
25	1			✓	86,78						Bus	
27	1				19,00	✓	Sum of lanes	2055			Normal, Bus	
28	1				19,00	✓	Sum of lanes	2055			Normal	
29	1			✓	7,85	✓	Sum of lanes	1800			Normal	
30	1			✓	7,31	✓	Sum of lanes	1800			Normal	
31	1			✓	24,32	✓	Sum of lanes	1800	✓		Normal	
32	1			✓	66,53						Bus	
33	1			✓	24,62	✓	Sum of lanes	1800	✓		Normal	
34	1			✓	89,20						Bus	
35	1			✓	20,17						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.26		1958
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	21.87		1923
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	28.01		1951
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	22.36	✓	1813
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	18.84		1903
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	15.95	✓	1750
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	65.69	✓	1872
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	47	25.38	✓	1883
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	32.26		1964
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.59	✓	1825
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	44.60	✓	1853
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	12.05	✓	1721
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	90	97.49		2027
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.96	✓	1747
24	1	1	(untitled)											
25	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800
31	1	1	(untitled)											1800
32	1	1	(untitled)											
33	1	1	(untitled)											1800
34	1	1	(untitled)											
35	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		4.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		4.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		4.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
22	1	NetworkDefault	100	100	100		4.00	
23	1	NetworkDefault	100	100	100		4.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	
31	1	NetworkDefault	100	100	100		4.00	
32	1	NetworkDefault	100	100	100		0.00	
33	1	NetworkDefault	100	100	100		4.00	
34	1	NetworkDefault	100	100	100		0.00	
35	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	540	540	
1x	1	500	500	
2	1	155	155	
2x	1	1083	1083	
3	1	111	111	
3x	1	907	907	
4	1	251	251	0
4x	1	1209	1209	
9	1	158	158	
10	1	298	298	
11	1	428	428	
12	1	726	726	
13	1	322	322	
14	1	111	111	
15	1	473	473	
16	1	584	584	
17	1	814	814	
18	1	175	175	0
19	1	251	251	
20	1	902	902	
22	1	878	878	
23	1	116	116	0
24	1	0		0
25	1	0		0
27	1	994	994	0
28	1	155	155	
29	1	1149	1149	
30	1	1240	1240	
31	1	28	28	
32	1	0		0
33	1	152	152	
34	1	223		0
35	1	88	88	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	K		0	0
2	1	1	A		0	0
3	1	1	D		0	0
4	1	1	G		0	0
9	1	1	L		0	0
13	1	1	E		0	0
17	1	1	H		0	0
18	1	1	I		0	0
22	1	1	B		0	0
23	1	1	C		0	0
31	1	1	J		0	0
33	1	1	F		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
12	1	1.92	30.00
16	1	3.72	30.00
29	1	1.00	30.00
30	1	1.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.02	30.00		✓	Offside	18.84
1x	1	1	2/1	1x/1	10.14	30.00		✓	Offside	30.26
2	1	1	28/1	2/1	2.86	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	9.84	30.00		✓	Offside	21.87
3	1	1	14/1	3/1	2.91	30.00		✓	Nearside	32.26
3x	1	1	4/1	3x/1	11.18	30.00		✓	Offside	28.98
4	1	1	19/1	4/1	3.72	30.00	5.00	✓	Straight	Straight Movement
4x	1	1	13/1	4x/1	9.62	30.00		✓	Nearside	25.38
9	1	1	11/1	9/1	3.10	30.00		✓	Offside	15.95
10	1	1	12/1	10/1	1.00	30.00		✓	Offside	65.69
11	1	1	12/1	11/1	1.00	30.00		✓	Offside	92.92
13	1	1	15/1	13/1	3.00	30.00		✓	Nearside	30.59
14	1	1	16/1	14/1	1.00	30.00		✓	Nearside	63.19
15	1	1	16/1	15/1	1.00	30.00		✓	Nearside	44.60
17	1	1	20/1	17/1	3.72	30.00		✓	Offside	97.49
18	1	1	20/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Offside	53.08
20	1	1	30/1	20/1	2.28	30.00		✓	Offside	53.43
22	1	1	27/1	22/1	2.99	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	2.87	30.00	5.00	✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00	5.00	✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
31	1	1	10/1	31/1	2.92	30.00		✓	Offside	19.26
32	1	1	18/1	32/1			5.00	✓	Nearside	12.05
33	1	1	15/1	33/1	2.95	30.00		✓	Nearside	34.90
34	1	1	23/1	34/1			5.00	✓	Nearside	13.96
35	1	1	30/1	35/1	2.42	30.00		✓	Offside	40.88
1	1	2	11/1	1/1	3.02	30.00		✓	Offside	15.98
1x	1	2	13/1	1x/1	10.14	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	9.84	30.00		✓	Nearside	22.36
3x	1	2	23/1	3x/1	11.18	30.00		✓	Nearside	14.42
4x	1	2	22/1	4x/1	9.62	30.00		✓	Straight	Straight Movement
18	1	2	35/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
34	1	2	4/1	34/1			5.00	✓	Offside	28.01
1x	1	3	18/1	1x/1	10.14	30.00		✓	Nearside	13.24
2x	1	3	17/1	2x/1	9.84	30.00		✓	Straight	Straight Movement
3x	1	3	1/1	3x/1	11.18	30.00		✓	Straight	Straight Movement
4x	1	3	31/1	4x/1	9.62	30.00		✓	Offside	21.85
		4	33/1	4x/1	9.62	30.00		✓	Nearside	22.13

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	M	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Limit paths by length	Path length limit multiplier	Limit paths by number	Limit paths by flow
1	(untitled)	✓	Path Equalisation			✓		✓	1.25		

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	158	540	28	0	0	0	0
	2	155	0	116	878	0	0	0	0
	3	170	111	0	303	0	0	0	0
	4	175	814	251	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1, 32/1	#0000FF
	2	(untitled)	29/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1, 34/1	#FF0000
	4	(untitled)	30/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	22		1	4	12/1, 10/1, 31/1, 4x/1	Normal	28
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	158
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	111
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	152
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	170
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	155
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	251
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	814
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	88
	42		4	1	30/1, 35/1, 18/1, 1x/1	Normal	88
	43		3	4	16/1, 15/1, 33/1, 4x/1	Normal	152
	44		2	3	29/1, 27/1, 23/1, 3x/1	Normal	116
	45		2	4	29/1, 27/1, 22/1, 4x/1	Normal	878
	46		1	3	12/1, 10/1, 1/1, 3x/1	Normal	270
	47		1	3	12/1, 11/1, 1/1, 3x/1	Normal	270

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		9	75

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A		7	0	0	Unknown	
	B		7	0	0	Unknown	
	C		7	0	0	Unknown	
	D		7	0	0	Unknown	
	E		7	0	0	Unknown	
	F		7	0	0	Unknown	
	G		7	0	0	Unknown	
	H		7	0	0	Unknown	
	I		7	0	0	Unknown	
	J		7	0	0	Unknown	
	K		7	0	0	Unknown	
	L		7	0	0	Unknown	
	M		7	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	K, E, L, F	1
	2	L, J, D, F	1
	3	B, H, C, I	1
	4	A, C, I, G	1
	5	M	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	75	
	2	(untitled)		Single	1, 2, 3, 5, 4	76	
	3	(untitled)		Single	1, 2, 4, 3, 5	77	
	4	(untitled)		Single	1, 2, 4, 5, 3	77	
	5	(untitled)		Single	1, 2, 5, 3, 4	75	
	6	(untitled)		Single	1, 2, 5, 4, 3	76	
	7	(untitled)		Single	1, 3, 2, 4, 5	79	
	8	(untitled)		Single	1, 3, 2, 5, 4	78	
	9	(untitled)		Single	1, 3, 4, 2, 5	75	
	10	(untitled)		Single	1, 3, 4, 5, 2	75	

Intergreen Matrix for Controller Stream 1

		To											
		A	B	C	D	E	F	G	H	I	J	K	L	M
From	A				5	5			5		6	5		10
	B				5	6	6	5			5	5		10
	C				5	6	6					5		10
	D	6	5	5				5	5			5		9
	E	5	5	5				5	6	8	6			10
	F		5	5										8
	G		6		6	5					5	5		10
	H	5			5	5					5	5	6	10
	I					5					5	6	6	10
	J	5	5			5		6	5	5				9
	K	5	6	8	5			5	5	5				10
	L								5	5				8
	M	14	14	14	14	14	14	14	14	14	14	6	14	

Banned Stage transitions for Controller Stream 1

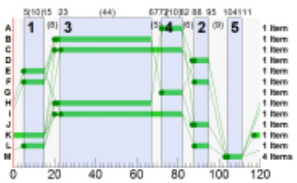
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1			Green Period 2		
					Start	End	Duration	Start	End	Duration
1	1	1	1	K	117	15	18			
2	1	1	1	A	72	82	10			
3	1	1	1	D	88	95	7			
4	1	1	1	G	72	82	10			
9	1	1	1	L	88	95	7	5	15	10
13	1	1	1	E	5	15	10			
17	1	1	1	H	21	67	46			
18	1	1	1	I	23	82	59			
22	1	1	1	B	21	67	46			
23	1	1	1	C	23	82	59			
31	1	1	1	J	88	95	7			
33	1	1	1	F	88	95	7	5	15	10

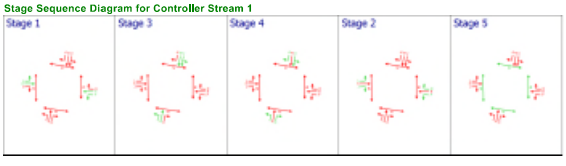
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:00-09:00	1	1	166	-46	540	2055	18	750.82	118.81	2970.35	1599.24	16.95	1616.19
	1x	1	0	Unrestricted	422	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	86	4	155	1958	10	104.63	7.27	181.76	63.97	2.63	66.60
	2x	1	0	Unrestricted	1074	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	87	4	111	1923	7	123.04	5.72	143.04	53.87	2.04	55.91
	3x	1	0	Unrestricted	620	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	140	-36	251	1951	10	573.07	43.16	863.20	567.37	7.86	575.23
	4x	1	0	Unrestricted	1066	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	55	64	158	1813	17	35.09	3.76	93.89	21.87	2.00	23.87
	10	1	16	475	298	1903	120	0.18	0.01	1.45	0.21	0.00	0.21
	11	1	24	268	428	1750	120	0.33	0.04	3.96	0.56	0.00	0.56
	12	1	39	132	726	1872	120	0.61	0.12	6.14	1.74	0.00	1.74
	13	1	187	-52	322	1883	10	870.65	80.97	2024.18	1105.82	10.00	1115.82
	14	1	6	1492	111	1964	120	0.05	0.00	0.17	0.02	0.00	0.02
	15	1	26	247	474	1825	120	0.35	0.05	4.55	0.65	0.00	0.65
	16	1	32	185	585	1853	120	0.45	0.07	1.46	1.03	0.00	1.03
	17	1	101	-11	814	2055	46	107.92	42.85	856.96	346.52	15.25	361.78
	18	1	20	340	176	1721	59	17.25	3.25	65.06	11.98	1.20	13.18
	19	1	12	637	251	2055	120	0.12	0.01	0.28	0.12	0.00	0.12
	20	1	44	102	902	2027	120	0.71	0.18	5.94	2.53	0.00	2.53
	22	1	109	-17	878	2055	46	202.87	67.92	1698.09	702.60	21.24	723.84
	23	1	13	578	116	1747	59	16.39	2.07	51.81	7.50	0.76	8.26
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	48	86	994	2055	120	0.82	0.23	7.54	3.21	0.00	3.21
	28	1	8	1093	155	2055	120	0.07	0.00	0.10	0.04	0.00	0.04
	29	1	64	41	1149	1800	120	1.76	0.56	41.13	7.97	0.00	7.97
	30	1	69	31	1241	1800	120	2.21	0.76	59.89	10.81	0.00	10.81
	31	1	23	286	28	1800	7	57.68	0.91	22.85	6.37	0.34	6.71
	32	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	33	1	53	69	152	1800	17	34.57	3.59	89.86	20.73	1.91	22.64
	34	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	35	1	0	Unrestricted	88	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
08:00-09:00	(ALL)	(ALL)	0	0	11000	7	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

From \ To	1	2	3	4	5	6	7	8
1	0.0	51.9	768.8	73.9	0.0	0.0	0.0	0.0
2	122.7	0.0	36.3	221.3	0.0	0.0	0.0	0.0
3	889.3	141.0	0.0	470.7	0.0	0.0	0.0	0.0
4	37.0	127.7	593.6	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
22	1	4	28		73.92		127.50	0.00	0.00	0.00	28	73.92	127.50
24	1	2	158		51.89		130.83	0.00	0.00	0.00	158	51.89	130.83
26	3	2	111		141.02		143.28	0.00	0.00	0.00	111	141.02	143.28
27	3	4	152		888.79		142.22	0.00	0.00	0.00	152	888.79	142.22
28	3	1	170		889.31		146.54	0.00	0.00	0.00	170	889.31	146.54
34	2	1	155		122.73		135.15	0.00	0.00	0.00	155	122.73	135.15
35	4	3	251		593.58		150.49	0.00	0.00	0.00	251	593.58	150.49
36	4	2	814		127.69		139.32	0.00	0.00	0.00	814	127.69	139.32
37	4	1	88		37.31		141.82	0.00	0.00	0.00	88	37.31	141.82
42	4	1	88		36.74		142.99	0.00	0.00	0.00	88	36.74	142.99
43	3	4	152		52.66		141.80	0.00	0.00	0.00	152	52.66	141.80
44	2	3	116		36.30		143.91	0.00	0.00	0.00	116	36.30	143.91
45	2	4	878		221.35		131.97	0.00	0.00	0.00	878	221.35	131.97
46	1	3	270		768.72		141.33	0.00	0.00	0.00	270	768.72	141.33
47	1	3	270		768.88		141.33	0.00	0.00	0.00	270	768.88	141.33

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream		Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	K		540 <	2055	18	166	-46	753.84	750.82	415.43	118.81 +	100
1x	1						422	Unrestricted	120	0	Unrestricted	10.14	0.00	0.00	0.00	100
2	1		1	1	A		155 <	1958	10	86	4	107.48	104.63	135.45	7.27 +	100
2x	1						1074	Unrestricted	120	0	Unrestricted	9.84	0.00	0.00	0.00	100
3	1		1	1	D		111 <	1923	7	87	4	125.96	123.04	146.42	5.72 +	100
3x	1						620	Unrestricted	120	0	Unrestricted	11.18	0.00	0.00	0.00	100
4	1 NB		1	1	G		251 <	1951	10	140	-36	576.79	573.07	350.39	43.16 +	100
4x	1						1066	Unrestricted	120	0	Unrestricted	9.62	0.00	0.00	0.00	100
9	1		1	1	L		158	1813	17	55	64	38.19	35.09	101.09	3.76	100
10	1		1				298	1903	120	16	475	1.18	0.18	0.00	0.01	100
11	1		1				428	1750	120	24	268	1.33	0.33	0.00	0.04	100
12	1		1				726	1872	120	39	132	2.53	0.61	0.00	0.12	100
13	1		1	1	E		322 <	1883	10	187	-52	873.65	870.65	461.90	80.97 +	100
14	1		1				111	1964	120	6	1492	1.05	0.05	0.00	0.00	100
15	1		1				474	1825	120	26	247	1.35	0.35	0.00	0.05	100
16	1		1				585	1853	120	32	185	4.17	0.45	0.00	0.07	100
17	1		1	1	H		814 <	2055	46	101	-11	111.64	107.92	151.15	42.85 +	100
18	1 NB		1	1	I		176	1721	59	20	340	20.97	17.25	54.45	3.25	100
19	1		1				251	2055	120	12	637	2.40	0.12	0.00	0.01	100
20	1		1				902	2027	120	44	102	2.99	0.71	0.00	0.18	100
22	1		1	1	B		878 <	2055	46	109	-17	205.87	202.87	210.47	67.92 +	100
23	1 NB		1	1	C		116	1747	59	13	578	19.26	16.39	52.50	2.07	100
24	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1 NB		1				994	2055	120	48	86	3.10	0.82	0.00	0.23	100
28	1		1				155	2055	120	8	1093	2.35	0.07	0.00	0.00	100
29	1		1				1149	1800	120	64	41	2.76	1.76	0.00	0.56	100
30	1		1				1241	1800	120	69	31	3.21	2.21	0.00	0.76	100
31	1		1	1	J		28	1800	7	23	286	60.60	57.68	96.93	0.91	100
32	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
33	1		1	1	F		152	1800	17	53	69	37.52	34.57	100.37	3.59	100
34	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
35	1						88	Unrestricted	120	0	Unrestricted	2.42	0.00	0.00	0.00	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	M	0	11000	7	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	468.65	335.25	1.40	319.49	4536.74	82.19	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	468.65	335.25	1.40	319.49	4536.74	82.19	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 35	No traffic node specified for arm(s): 35
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 32 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 32/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 34 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 34/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	8556,50	594,40	189,78	17/1	6	15	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Specific Demand Set (s)	Optimise specific Demand Set (s)	Include in report	Locked
[8] Junction 3			✓	D8		✓	

Demand Set Details

Year	Scenario	Time period	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2043	DS	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	75	75	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14,20	2,60	14,20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
1x			
2			1
2x			
3			1
3x			
4			1
4x			
9			1
10			1
11			1
12			1
13			1
14			1
15			1
16			1
17			1
18			1
19			1
20			1
22			1
23			1
24			
25			
27			1
28			1
29			1
30			1
31			1
32			
33			1
34			
35			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1			✓	25.15	✓	Sum of lanes	2055	✓		Normal	
1x	1			✓	84.51						Normal	
2	1			✓	23.79	✓	Sum of lanes	1958	✓		Normal	
2x	1			✓	82.01						Normal	
3	1			✓	24.27	✓	Sum of lanes	1923	✓		Normal	
3x	1			✓	93.18						Normal	
4	1				31.00	✓	Sum of lanes	1951	✓		Normal, Bus	
4x	1			✓	80.19						Normal	
9	1			✓	25.82	✓	Sum of lanes	1813	✓		Normal	
10	1				7.00	✓	Sum of lanes	1903			Normal	
11	1				7.00	✓	Sum of lanes	1750			Normal	
12	1				16.00	✓	Sum of lanes	1872			Normal	
13	1			✓	25.04	✓	Sum of lanes	1885	✓		Normal	
14	1				6.00	✓	Sum of lanes	1964			Normal	
15	1				6.00	✓	Sum of lanes	1825			Normal	
16	1				31.00	✓	Sum of lanes	1853			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1721	✓		Normal, Bus	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2025			Normal	
22	1			✓	24.94	✓	Sum of lanes	2055	✓		Normal	
23	1			✓	23.88	✓	Sum of lanes	1747	✓		Normal, Bus	
24	1			✓	88.54						Bus	
25	1			✓	88.78						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal, Bus	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	7.85	✓	Sum of lanes	1800			Normal	
30	1			✓	7.31	✓	Sum of lanes	1800			Normal	
31	1			✓	24.32	✓	Sum of lanes	1800	✓		Normal	
32	1			✓	66.53						Bus	
33	1			✓	24.62	✓	Sum of lanes	1800	✓		Normal	
34	1			✓	89.20						Bus	
35	1			✓	20.17						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.26		1958
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	21.87		1923
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	28.01		1951
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	22.36	✓	1813
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	18.84		1903
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	15.95	✓	1750
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	65.69	✓	1872
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	45	25.38	✓	1885
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	32.26		1964
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.59	✓	1825
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	44.60	✓	1853
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	12.05	✓	1721
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	97	97.49		2025
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.96	✓	1747
24	1	1	(untitled)											
25	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800
31	1	1	(untitled)											1800
32	1	1	(untitled)											
33	1	1	(untitled)											1800
34	1	1	(untitled)											
35	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		4.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		4.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		4.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
22	1	NetworkDefault	100	100	100		4.00	
23	1	NetworkDefault	100	100	100		4.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	
31	1	NetworkDefault	100	100	100		4.00	
32	1	NetworkDefault	100	100	100		0.00	
33	1	NetworkDefault	100	100	100		4.00	
34	1	NetworkDefault	100	100	100		0.00	
35	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	585	585	
1x	1	385	385	
2	1	128	128	
2x	1	1787	1787	
3	1	100	100	
3x	1	825	825	
4	1	190	190	0
4x	1	1218	1218	
9	1	517	517	
10	1	305	305	
11	1	810	810	
12	1	1114	1114	
13	1	345	345	
14	1	100	100	
15	1	499	499	
16	1	599	599	
17	1	1170	1170	
18	1	67	67	0
19	1	190	190	
20	1	1204	1204	
22	1	897	897	
23	1	50	50	0
24	1	0		0
25	1	0		0
27	1	947	947	0
28	1	128	128	
29	1	1075	1075	
30	1	1427	1427	
31	1	12	12	
32	1	0		0
33	1	155	155	
34	1	223		0
35	1	34	34	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	K		0	0
2	1	1	A		0	0
3	1	1	D		0	0
4	1	1	G		0	0
9	1	1	L		0	0
13	1	1	E		0	0
17	1	1	H		0	0
18	1	1	I		0	0
22	1	1	B		0	0
23	1	1	C		0	0
31	1	1	J		0	0
33	1	1	F		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
12	1	1.92	30.00
16	1	3.72	30.00
29	1	1.00	30.00
30	1	1.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.02	30.00		✓	Offside	18.84
1x	1	1	2/1	1x/1	10.14	30.00		✓	Offside	30.26
2	1	1	28/1	2/1	2.86	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	9.84	30.00		✓	Offside	21.87
3	1	1	14/1	3/1	2.91	30.00		✓	Nearside	32.26
3x	1	1	4/1	3x/1	11.18	30.00		✓	Offside	28.98
4	1	1	19/1	4/1	3.72	30.00	5.00	✓	Straight	Straight Movement
4x	1	1	13/1	4x/1	9.62	30.00		✓	Nearside	25.38
9	1	1	11/1	9/1	3.10	30.00		✓	Offside	15.95
10	1	1	12/1	10/1	1.00	30.00		✓	Offside	65.69
11	1	1	12/1	11/1	1.00	30.00		✓	Offside	92.92
13	1	1	15/1	13/1	3.00	30.00		✓	Nearside	30.59
14	1	1	16/1	14/1	1.00	30.00		✓	Nearside	63.19
15	1	1	16/1	15/1	1.00	30.00		✓	Nearside	44.60
17	1	1	20/1	17/1	3.72	30.00		✓	Offside	97.49
18	1	1	20/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Offside	53.08
20	1	1	30/1	20/1	2.28	30.00		✓	Offside	53.43
22	1	1	27/1	22/1	2.99	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	2.87	30.00	5.00	✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00	5.00	✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
31	1	1	10/1	31/1	2.92	30.00		✓	Offside	19.26
32	1	1	18/1	32/1			5.00	✓	Nearside	12.05
33	1	1	15/1	33/1	2.95	30.00		✓	Nearside	34.90
34	1	1	23/1	34/1			5.00	✓	Nearside	13.96
35	1	1	30/1	35/1	2.42	30.00		✓	Offside	40.88
1	1	2	11/1	1/1	3.02	30.00		✓	Offside	15.98
1x	1	2	13/1	1x/1	10.14	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	9.84	30.00		✓	Nearside	22.36
3x	1	2	23/1	3x/1	11.18	30.00		✓	Nearside	14.42
4x	1	2	22/1	4x/1	9.62	30.00		✓	Straight	Straight Movement
18	1	2	35/1	18/1	3.72	30.00	5.00	✓	Straight	Straight Movement
34	1	2	4/1	34/1			5.00	✓	Offside	28.01
1x	1	3	18/1	1x/1	10.14	30.00		✓	Nearside	13.24
2x	1	3	17/1	2x/1	9.84	30.00		✓	Straight	Straight Movement
3x	1	3	1/1	3x/1	11.18	30.00		✓	Straight	Straight Movement
4x	1	3	31/1	4x/1	9.62	30.00		✓	Offside	21.85
		4	33/1	4x/1	9.62	30.00		✓	Nearside	22.13

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	M	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Limit paths by length	Path length limit multiplier	Limit paths by number	Limit paths by flow
1	(untitled)	✓	Path Equalisation			✓		✓	1.25		

Normal Input Flows (PCU/hr)

From \ To	1	2	3	4	5	6	7	8
1	0	517	585	12	0	0	0	0
2	128	0	50	897	0	0	0	0
3	190	100	0	309	0	0	0	0
4	67	1170	190	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1, 32/1	#0000FF
	2	(untitled)	29/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1, 34/1	#FF0000
	4	(untitled)	30/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	22		1	4	12/1, 10/1, 31/1, 4x/1	Normal	12
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	517
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	100
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	155
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	190
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	128
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	190
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	1170
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	34
	42		4	1	30/1, 35/1, 18/1, 1x/1	Normal	34
	43		3	4	16/1, 15/1, 33/1, 4x/1	Normal	155
	44		2	3	29/1, 27/1, 23/1, 3x/1	Normal	50
	45		2	4	29/1, 27/1, 22/1, 4x/1	Normal	897
	46		1	3	12/1, 10/1, 1/1, 3x/1	Normal	293
	47		1	3	12/1, 11/1, 1/1, 3x/1	Normal	293

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		9	75

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A		7	0	0	Unknown	
	B		7	0	0	Unknown	
	C		7	0	0	Unknown	
	D		7	0	0	Unknown	
	E		7	0	0	Unknown	
	F		7	0	0	Unknown	
	G		7	0	0	Unknown	
	H		7	0	0	Unknown	
	I		7	0	0	Unknown	
	J		7	0	0	Unknown	
	K		7	0	0	Unknown	
	L		7	0	0	Unknown	
	M		7	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	K, E, L, F	1
	2	L, J, D, F	1
	3	B, H, C, I	1
	4	A, C, I, G	1
	5	M	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	75	
	2	(untitled)		Single	1, 2, 3, 5, 4	76	
	3	(untitled)		Single	1, 2, 4, 3, 5	77	
	4	(untitled)		Single	1, 2, 4, 5, 3	77	
	5	(untitled)		Single	1, 2, 5, 3, 4	75	
	6	(untitled)		Single	1, 2, 5, 4, 3	76	
	7	(untitled)		Single	1, 3, 2, 4, 5	79	
	8	(untitled)		Single	1, 3, 2, 5, 4	78	
	9	(untitled)		Single	1, 3, 4, 2, 5	75	
	10	(untitled)		Single	1, 3, 4, 5, 2	75	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F	G	H	I	J	K	L	M
A				5	5			5		6	5		10
B				5	6	6	5			5	5		10
C				5	6	6					5		10
D	6	5	5				5	5			5		9
E	5	5	5				5	6	8	6			10
F		5	5										8
G		6		6	5					5	5		10
H	5			5	5					5	5	6	10
I					5					5	6	6	10
J	5	5			5		6	5	5				9
K	5	6	8	5			5	5	5				10
L							5	5					8
M	14	14	14	14	14	14	14	14	14	14	6	14	

Banned Stage transitions for Controller Stream 1

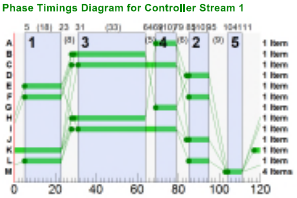
From \ To	1	2	3	4	5
1					
2					
3					
4					
5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1			Green Period 2		
					Start	End	Duration	Start	End	Duration
1	1	1	1	K	117	23	26			
2	1	1	1	A	69	79	10			
3	1	1	1	D	85	95	10			
4	1	1	1	G	69	79	10			
9	1	1	1	L	85	95	10	5	23	18
13	1	1	1	E	5	23	18			
17	1	1	1	H	29	64	35			
18	1	1	1	I	31	79	48			
22	1	1	1	B	29	64	35			
23	1	1	1	C	31	79	48			
31	1	1	1	J	85	95	10			
33	1	1	1	F	85	95	10	5	23	18

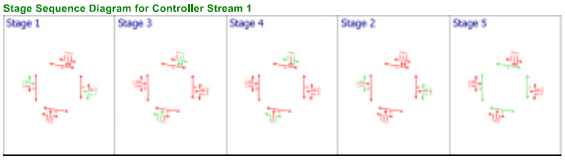
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	127	-29	586	2055	26	427.42	76.89	1972.15	987.95	17.61	1005.56
	1x	1	0	Unrestricted	360	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	71	26	128	1958	10	76.50	4.96	124.02	38.63	1.84	40.46
	2x	1	0	Unrestricted	1170	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	57	59	100	1923	10	65.29	3.53	88.24	25.75	1.31	27.07
	3x	1	0	Unrestricted	691	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	106	-15	190	1951	10	236.00	15.66	313.20	176.87	4.80	181.67
	4x	1	0	Unrestricted	918	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	114	-21	517	1813	28	273.99	44.84	1121.04	558.74	13.96	572.70
	10	1	16	462	305	1903	120	0.18	0.02	1.53	0.22	0.00	0.22
	11	1	46	94	810	1750	120	0.89	0.20	19.91	2.83	0.00	2.83
	12	1	60	51	1115	1872	120	1.41	0.44	21.87	6.21	0.00	6.21
	13	1	116	-22	345	1885	18	315.33	35.90	897.44	429.11	9.60	438.71
	14	1	5	1668	100	1964	120	0.05	0.00	0.14	0.02	0.00	0.02
	15	1	27	229	500	1825	120	0.37	0.05	5.17	0.73	0.00	0.73
	16	1	32	178	600	1853	120	0.46	0.08	1.55	1.10	0.00	1.10
	17	1	190	-53	1170	2055	35	875.37	297.68	5953.65	4039.85	36.23	4076.08
	18	1	10	830	68	1721	48	22.15	1.38	27.68	5.94	0.51	6.45
	19	1	9	873	190	2055	120	0.09	0.00	0.16	0.07	0.00	0.07
	20	1	59	51	1204	2025	120	1.30	0.43	14.50	6.18	0.00	6.18
	22	1	145	-38	897	2055	35	596.09	161.71	4042.79	2109.06	28.11	2137.17
	23	1	7	1184	50	1747	48	21.82	1.02	25.41	4.30	0.38	4.68
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	46	95	947	2055	120	0.75	0.20	6.56	2.79	0.00	2.79
	28	1	6	1345	128	2055	120	0.06	0.00	0.07	0.03	0.00	0.03
	29	1	60	51	1075	1800	120	1.48	0.44	32.36	6.27	0.00	6.27
	30	1	79	13	1428	1800	120	3.79	1.50	118.32	21.36	0.00	21.36
	31	1	7	1138	12	1800	10	50.81	0.37	9.15	2.41	0.14	2.54
	32	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	33	1	34	161	155	1800	28	22.91	2.93	73.30	14.01	1.60	15.61
	34	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	35	1	0	Unrestricted	34	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	(ALL)	(ALL)	0	0	11000	7	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	292.1	446.5	67.9	0.0	0.0	0.0	0.0
	2	94.3	0.0	41.4	614.2	0.0	0.0	0.0	0.0
	3	334.0	83.3	0.0	187.3	0.0	0.0	0.0	0.0
	4	43.8	897.3	258.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
22	1	4	12		67.87		127.50	0.00	0.00	0.00	12	67.87	127.50
24	1	2	517		292.15		130.83	0.00	0.00	0.00	517	292.15	130.83
26	3	2	100		83.28		143.28	0.00	0.00	0.00	100	83.28	143.28
27	3	4	155		333.51		142.22	0.00	0.00	0.00	155	333.51	142.22
28	3	1	190		334.03		146.54	0.00	0.00	0.00	190	334.03	146.54
34	2	1	128		94.32		135.15	0.00	0.00	0.00	128	94.32	135.15
35	4	3	190		258.06		150.49	0.00	0.00	0.00	190	258.06	150.49
36	4	2	1170		897.31		139.32	0.00	0.00	0.00	1170	897.31	139.32
37	4	1	34		44.38		141.82	0.00	0.00	0.00	34	44.38	141.82
42	4	1	34		43.22		142.99	0.00	0.00	0.00	34	43.22	142.99
43	3	4	155		41.05		141.80	0.00	0.00	0.00	155	41.05	141.80
44	2	3	50		41.38		143.91	0.00	0.00	0.00	50	41.38	143.91
45	2	4	897		614.21		131.97	0.00	0.00	0.00	897	614.21	131.97
46	1	3	293		446.13		141.33	0.00	0.00	0.00	293	446.13	141.33
47	1	3	293		446.84		141.33	0.00	0.00	0.00	293	446.84	141.33

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	K	586 <	2055	26	127	-29	430.44	427.42	303.71	78.89 +	100
1x	1					360	Unrestricted	120	0	Unrestricted	10.14	0.00	0.00	0.00	100
2	1		1	1	A	128 <	1958	10	71	26	79.36	76.50	114.35	4.96 +	100
2x	1					1170	Unrestricted	120	0	Unrestricted	9.84	0.00	0.00	0.00	100
3	1		1	1	D	100	1923	10	57	59	68.20	65.29	104.61	3.53	100
3x	1					691	Unrestricted	120	0	Unrestricted	11.18	0.00	0.00	0.00	100
4	1 NB		1	1	G	190 <	1951	10	106	-15	239.72	236.00	214.04	15.66 +	100
4x	1					918	Unrestricted	120	0	Unrestricted	9.62	0.00	0.00	0.00	100
9	1		1	1	L	517 <	1813	28	114	-21	277.09	273.99	245.55	44.84 +	100
10	1		1			305	1903	120	16	462	1.18	0.18	0.00	0.02	100
11	1		1			810	1750	120	46	94	1.89	0.89	0.00	0.20	100
12	1		1			1115	1872	120	60	51	3.33	1.41	0.00	0.44	100
13	1		1	1	E	345 <	1885	18	116	-22	318.33	315.33	256.64	35.90 +	100
14	1		1			100	1964	120	5	1668	1.05	0.05	0.00	0.00	100
15	1		1			500	1825	120	27	229	1.37	0.37	0.00	0.05	100
16	1		1			600	1853	120	32	178	4.18	0.46	0.00	0.08	100
17	1		1	1	H	1170 <	2055	35	190	-53	879.09	875.37	468.72	297.68 +	100
18	1 NB		1	1	I	68	1721	48	10	830	25.87	22.15	60.08	1.38	100
19	1		1			190	2055	120	9	873	2.37	0.09	0.00	0.00	100
20	1		1			1204	2025	120	59	51	3.58	1.30	0.00	0.43	100
22	1		1	1	B	897 <	2055	35	145	-38	599.08	596.09	363.62	161.71 +	100
23	1 NB		1	1	C	50	1747	48	7	1184	24.69	21.82	59.86	1.02	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1 NB		1			947	2055	120	46	95	3.03	0.75	0.00	0.20	100
28	1		1			128	2055	120	6	1345	2.34	0.06	0.00	0.00	100
29	1		1			1075	1800	120	60	51	2.48	1.48	0.00	0.44	100
30	1		1			1428 <	1800	120	79	13	4.79	3.79	0.00	1.50 +	100
31	1		1	1	J	12	1800	10	7	1138	53.73	50.81	90.56	0.37	100
32	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
33	1		1	1	F	155	1800	28	34	161	25.87	22.91	82.31	2.93	100
34	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
35	1					34	Unrestricted	120	0	Unrestricted	2.42	0.00	0.00	0.00	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	M	0	11000	7	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	492.83	610.99	0.81	594.40	8440.42	116.08	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	492.83	610.99	0.81	594.40	8440.42	116.08	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Version: 16.1.6.2289

Filename: Junction 4 DN 2028.t16
Path: G:\2023\p230156\calcs\transyt
Report generation date: 21/01/2025 10:25:01

Summary of network performance

	AM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	2028 DN AM - 2028				
Network	A1 D1	1092.58	74.02	106% (TS 17/1)	4 (11%)

	PM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	2028 DN PM - 2028				
Network	A2 D2	343.92	22.69	89% (TS 17/1)	0 (0%)

File summary

File description

File title	(untitled)
Location	
Site number	
Driving side	Left
Date	21/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HEADOFFICE\GarveyD
Description	

Model and Results

Display journey time results	Display OD matrix distances	Display excess queue results	Display separate uniform and random results	Display TRANSYT 12 style timings	Display effective greens in results

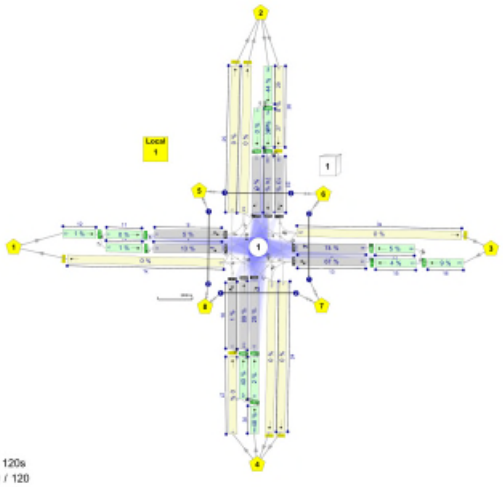
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Traffic units input	Traffic units results
€	kph	m	mpg	l/h	PCU	PCU

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	10000	10000	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
Cycletime 0s / 120s
Timesteps 119 / 120
2, 2
Diagram produced using TRANSYT 16.1.6.2289

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 21	No traffic node specified for arm(s): 21, 26
Info	Traffic Stream Flows	Arm 21 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 21/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 26 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 26/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	1092.58	74.02	105.94	17/1	4	11	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
2028 DN AM			✓	D1		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2028	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	74	74	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
1		NONE		1
1x		NONE		
2		NONE		1
2x		NONE		
3		NONE		1
3x		NONE		
4		NONE		1
4x		NONE		
9		NONE		1
10		NONE		1
11		NONE		1
12		NONE		1
13		NONE		1
14		NONE		1
15		NONE		1
16		NONE		1
17		NONE		1
18		NONE		1
19		NONE		1
20		NONE		1
21		NONE		
22		NONE		1
23		NONE		1
24		NONE		
25		NONE		
26		NONE		
27		NONE		1
28		NONE		1
29		NONE		1
30		NONE		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1				25.00	✓	Sum of lanes	1930	✓		Normal	
1x	1			✓	153.05						Normal	
2	1				31.00	✓	Sum of lanes	1929	✓		Normal	
2x	1			✓	148.38						Normal	
3	1				22.00	✓	Sum of lanes	1936	✓		Normal	
3x	1			✓	162.17						Normal	
4	1				31.00	✓	Sum of lanes	1959	✓		Normal	
4x	1			✓	150.54						Normal	
9	1				25.00	✓	Sum of lanes	1912	✓		Normal	
10	1				7.00	✓	Sum of lanes	2055			Normal	
11	1				7.00	✓	Sum of lanes	1915			Normal	
12	1				16.00	✓	Sum of lanes	1915			Normal	
13	1				22.00	✓	Sum of lanes	1840	✓		Normal	
14	1				6.00	✓	Sum of lanes	2055			Normal	
15	1				6.00	✓	Sum of lanes	1915			Normal	
16	1				31.00	✓	Sum of lanes	1915			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1575	✓		Normal	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2055			Normal	
21	1			✓	56.58						Bus	
22	1				31.00	✓	Sum of lanes	2055	✓		Normal	
23	1				31.00	✓	Sum of lanes	1739	✓		Normal	
24	1			✓	160.18						Bus	
25	1			✓	158.57						Bus	
26	1			✓	59.34						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	27.94	✓	Sum of lanes	1800			Normal	
30	1			✓	20.28	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	23.20		1930
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	22.93		1929
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	24.41		1936
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.61		1959
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	13	15.97	✓	1912
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	51	14.88	✓	1840
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.57	✓	1575
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
21	1	1	(untitled)											
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.31	✓	1739
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		5.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		3.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		3.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
21	1	NetworkDefault	100	100	100		0.00	
22	1	NetworkDefault	100	100	100		5.00	
23	1	NetworkDefault	100	100	100		5.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
26	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	113	113	
1x	1	140	140	
2	1	1	1	
2x	1	853	853	
3	1	53	53	
3x	1	380	380	
4	1	78	78	
4x	1	920	920	
9	1	286	286	
10	1	113	113	
11	1	286	286	
12	1	399	399	
13	1	260	260	
14	1	53	53	
15	1	260	260	
16	1	313	313	
17	1	762	762	
18	1	12	12	
19	1	78	78	
20	1	774	774	
21	1	0		0
22	1	674	674	
23	1	54	54	
24	1	0		0
25	1	0		0
26	1	0		0
27	1	728	728	
28	1	1	1	
29	1	729	729	
30	1	852	852	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	D		0	0
2	1	1	B		0	0
3	1	1	D		0	0
4	1	1	B		0	0
9	1	1	C		0	0
13	1	1	C		0	0
17	1	1	A		0	0
18	1	1	A		0	0
22	1	1	A		0	0
23	1	1	A		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)
12	1	1.92	30.00	
16	1	3.72	30.00	
21	1			5.00
26	1			5.00
29	1	3.35	30.00	
30	1	2.43	30.00	

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.00	30.00		✓	Straight	Straight Movement
1x	1	1	2/1	1x/1	18.37	30.00		✓	Offside	22.93
2	1	1	28/1	2/1	3.72	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	17.81	30.00		✓	Offside	24.41
3	1	1	14/1	3/1	2.64	30.00		✓	Straight	Straight Movement
3x	1	1	4/1	3x/1	19.46	30.00		✓	Offside	30.61
4	1	1	19/1	4/1	3.72	30.00		✓	Straight	Straight Movement
4x	1	1	1/1	4x/1	18.06	30.00		✓	Offside	23.20
9	1	1	11/1	9/1	3.00	30.00		✓	Straight	Straight Movement
10	1	1	12/1	10/1	1.00	30.00		✓	Straight	Straight Movement
11	1	1	12/1	11/1	1.00	30.00		✓	Straight	Straight Movement
13	1	1	15/1	13/1	2.64	30.00		✓	Straight	Straight Movement
14	1	1	16/1	14/1	1.00	30.00		✓	Straight	Straight Movement
15	1	1	16/1	15/1	1.00	30.00		✓	Straight	Straight Movement
17	1	1	20/1	17/1	3.72	30.00		✓	Straight	Straight Movement
18	1	1	21/1	18/1	3.72	30.00		✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Straight	Straight Movement
20	1	1	30/1	20/1	2.28	30.00		✓	Straight	Straight Movement
22	1	1	27/1	22/1	3.72	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	3.72	30.00		✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00		✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
1x	1	2	13/1	1x/1	18.37	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	17.81	30.00		✓	Nearside	15.97
3x	1	2	9/1	3x/1	19.46	30.00		✓	Straight	Straight Movement
4x	1	2	13/1	4x/1	18.06	30.00		✓	Nearside	14.88
18	1	2	20/1	18/1	3.72	30.00		✓	Straight	Straight Movement
23	1	2	26/1	23/1	3.72	30.00		✓	Straight	Straight Movement
1x	1	3	18/1	1x/1	18.37	30.00		✓	Nearside	6.57
2x	1	3	17/1	2x/1	17.81	30.00		✓	Straight	Straight Movement
3x	1	3	23/1	3x/1	19.46	30.00		✓	Nearside	13.31
4x	1	3	22/1	4x/1	18.06	30.00		✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	38	248	113	0	0	0	0
	2	1	0	54	674	0	0	0	0
	3	127	53	0	133	0	0	0	0
	4	12	762	78	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1	#0000FF
	2	(untitled)	29/1, 26/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1	#FF0000
	4	(untitled)	30/1, 21/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	23		1	4	12/1, 10/1, 1/1, 4x/1	Normal	113
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	38
	25		1	3	12/1, 11/1, 9/1, 3x/1	Normal	248
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	53
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	133
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	127
	32		2	4	29/1, 27/1, 22/1, 4x/1	Normal	674
	33		2	3	29/1, 27/1, 23/1, 3x/1	Normal	54
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	1
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	78
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	762
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	12

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		1	74

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	0	0	Traffic	
	B	(untitled)	7	0	0	Traffic	
	C	(untitled)	7	0	0	Traffic	
	D	(untitled)	7	0	0	Traffic	
	E		13	0	0	Pedestrian	0
	F		13	0	0	Cycle	

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E, F	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	74	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A		6	6	6	7	7
	B	6		6	6	7	7
	C	6	6		6	7	7
	D	6	6	6		7	7
	E	8	8	8	8		
	F	8	8	8	8		

Banned Stage transitions for Controller Stream 1

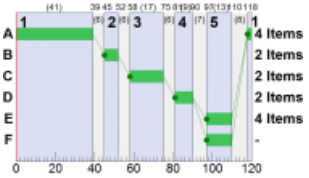
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	1	1	D	81	90	9
2	1	1	1	B	45	52	7
3	1	1	1	D	81	90	9
4	1	1	1	B	45	52	7
9	1	1	1	C	58	75	17
13	1	1	1	C	58	75	17
17	1	1	1	A	118	39	41
18	1	1	1	A	118	39	41
22	1	1	1	A	118	39	41
23	1	1	1	A	118	39	41

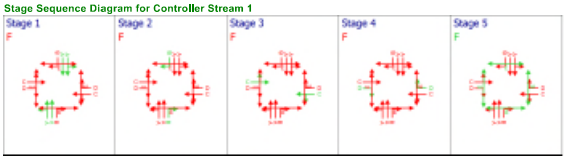
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:00-09:00	1	1	70	28	113	1930	9	78.46	4.42	110.57	34.97	1.63	36.61
	1x	1	0	Unrestricted	140	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	1	11474	1	1929	7	52.84	0.00	0.00	0.21	0.01	0.22
	2x	1	0	Unrestricted	810	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	33	174	53	1936	9	57.27	1.74	58.11	11.97	0.65	12.62
	3x	1	0	Unrestricted	380	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	60	51	78	1959	7	74.13	2.94	58.79	22.81	1.09	23.90
	4x	1	0	Unrestricted	920	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	100	-10	286	1912	17	148.99	17.24	431.01	168.08	5.92	174.00
	10	1	5	1537	113	2055	120	0.05	0.00	0.16	0.02	0.00	0.02
	11	1	15	503	286	1915	120	0.16	0.01	1.31	0.19	0.00	0.19
	12	1	21	332	399	1915	120	0.25	0.03	1.37	0.39	0.00	0.39
	13	1	94	-4	260	1840	17	113.42	13.07	435.59	116.32	4.68	121.00
	14	1	3	3390	53	2055	120	0.02	0.00	0.03	0.00	0.00	0.00
	15	1	14	563	260	1915	120	0.15	0.01	1.07	0.15	0.00	0.15
	16	1	16	451	313	1915	120	0.18	0.02	0.32	0.23	0.00	0.23
	17	1	106	-15	762	2055	41	167.45	51.43	1028.55	503.31	17.04	520.35
	18	1	2	4034	12	1575	41	25.75	0.26	5.20	1.22	0.10	1.32
	19	1	4	2271	78	2055	120	0.03	0.00	0.02	0.01	0.00	0.01
	20	1	38	139	774	2055	120	0.53	0.11	3.79	1.61	0.00	1.61
	21	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	22	1	94	-4	674	2055	41	66.81	27.16	543.25	177.61	9.92	187.53
	23	1	9	914	54	1739	41	26.48	1.20	24.09	5.64	0.45	6.09
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	26	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	35	154	728	2055	120	0.48	0.10	3.24	1.38	0.00	1.38
	28	1	0	184850	1	2055	120	0.00	0.00	0.00	0.00	0.00	0.00
	29	1	41	122	729	1800	120	0.68	0.14	2.83	1.96	0.00	1.96
	30	1	47	90	852	1800	120	0.90	0.21	6.02	3.02	0.00	3.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
08:00-09:00	(ALL)	(ALL)	0	0	11000	13	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	173.1	174.8	102.7	0.0	0.0	0.0	0.0
	2	81.2	0.0	56.5	95.4	0.0	0.0	0.0	0.0
	3	139.5	82.6	0.0	139.2	0.0	0.0	0.0	0.0
	4	54.0	195.1	103.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
23	1	4	113		102.74		198.54	0.00	0.00	0.00	113	102.74	198.54
24	1	2	38		173.13		196.38	0.00	0.00	0.00	38	173.13	196.38
25	1	3	248		174.78		210.17	0.00	0.00	0.00	248	174.78	210.17
26	3	2	53		82.64		207.38	0.00	0.00	0.00	53	82.64	207.38
27	3	4	133		139.18		209.54	0.00	0.00	0.00	133	139.18	209.54
28	3	1	127		139.48		212.05	0.00	0.00	0.00	127	139.48	212.05
32	2	4	674		95.38		228.47	0.00	0.00	0.00	674	95.38	228.47
33	2	3	54		56.46		240.11	0.00	0.00	0.00	54	56.46	240.11
34	2	1	1		81.24		230.99	0.00	0.00	0.00	1	81.24	230.99
35	4	3	78		102.96		232.45	0.00	0.00	0.00	78	102.96	232.45
36	4	2	762		195.12		218.66	0.00	0.00	0.00	762	195.12	218.66
37	4	1	12		53.97		223.33	0.00	0.00	0.00	12	53.97	223.33

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	D	113 <	1930	9	70	28	81.46	78.46	115.39	4.42 +	100
1x	1					140	Unrestricted	120	0	Unrestricted	18.37	0.00	0.00	0.00	100
2	1		1	1	B	1	1929	7	1	11474	56.56	52.84	92.35	0.00	100
2x	1					810	Unrestricted	120	0	Unrestricted	17.81	0.00	0.00	0.00	100
3	1		1	1	D	53	1936	9	33	174	59.91	57.27	97.51	1.74	100
3x	1					380	Unrestricted	120	0	Unrestricted	19.46	0.00	0.00	0.00	100
4	1		1	1	B	78	1959	7	60	51	77.85	74.13	111.42	2.94	100
4x	1					920	Unrestricted	120	0	Unrestricted	18.06	0.00	0.00	0.00	100
9	1		1	1	C	286 <	1912	17	100	-10	151.99	148.99	165.19	17.24 +	100
10	1		1			113	2055	120	5	1537	1.05	0.05	0.00	0.00	100
11	1		1			286	1915	120	15	503	1.16	0.16	0.00	0.01	100
12	1		1			399	1915	120	21	332	2.17	0.25	0.00	0.03	100
13	1		1	1	C	260 <	1840	17	94	-4	116.06	113.42	143.41	13.07 +	100
14	1		1			53	2055	120	3	3390	1.02	0.02	0.00	0.00	100
15	1		1			260	1915	120	14	563	1.15	0.15	0.00	0.01	100
16	1		1			313	1915	120	16	451	3.90	0.18	0.00	0.02	100
17	1		1	1	A	762 <	2055	41	106	-15	171.17	167.45	188.91	51.43 +	100
18	1		1	1	A	12	1575	41	2	4034	29.47	25.75	64.07	0.26	100
19	1		1			78	2055	120	4	2271	2.31	0.03	0.00	0.00	100
20	1		1			774	2055	120	38	139	2.81	0.53	0.00	0.11	100
21	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
22	1		1	1	A	674 <	2055	41	94	-4	70.53	66.81	117.39	27.16 +	100
23	1		1	1	A	54	1739	41	9	914	30.20	26.48	65.92	1.20	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
26	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1		1			728	2055	120	35	154	2.76	0.48	0.00	0.10	100
28	1		1			1	2055	120	0	184850	2.28	0.00	0.00	0.00	100
29	1		1			729	1800	120	41	122	4.03	0.68	0.00	0.14	100
30	1		1			852	1800	120	47	90	3.33	0.90	0.00	0.21	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED			QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	P
(ALL)	(ALL)	(untitled)		1	E	0	11000	13	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	496.09	90.60	5.48	74.02	1051.09	41.48	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	496.09	90.60	5.48	74.02	1051.09	41.48	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 21	No traffic node specified for arm(s): 21, 26
Info	Traffic Stream Flows	Arm 21 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 21/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 26 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 26/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	343.92	22.69	88.56	17/1	0	0	✓

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
2028 DN PM			✓	D2		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2028	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	74	74	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
1		NONE		1
1x		NONE		
2		NONE		1
2x		NONE		
3		NONE		1
3x		NONE		
4		NONE		1
4x		NONE		
9		NONE		1
10		NONE		1
11		NONE		1
12		NONE		1
13		NONE		1
14		NONE		1
15		NONE		1
16		NONE		1
17		NONE		1
18		NONE		1
19		NONE		1
20		NONE		1
21		NONE		
22		NONE		1
23		NONE		1
24		NONE		
25		NONE		
26		NONE		
27		NONE		1
28		NONE		1
29		NONE		1
30		NONE		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1				25.00	✓	Sum of lanes	1930	✓		Normal	
1x	1			✓	153.05						Normal	
2	1				31.00	✓	Sum of lanes	2055	✓		Normal	
2x	1			✓	148.38						Normal	
3	1				22.00	✓	Sum of lanes	1936	✓		Normal	
3x	1			✓	162.17						Normal	
4	1				31.00	✓	Sum of lanes	1959	✓		Normal	
4x	1			✓	150.54						Normal	
9	1				25.00	✓	Sum of lanes	1935	✓		Normal	
10	1				7.00	✓	Sum of lanes	2055			Normal	
11	1				7.00	✓	Sum of lanes	1915			Normal	
12	1				16.00	✓	Sum of lanes	1915			Normal	
13	1				22.00	✓	Sum of lanes	1826	✓		Normal	
14	1				6.00	✓	Sum of lanes	2055			Normal	
15	1				6.00	✓	Sum of lanes	1915			Normal	
16	1				31.00	✓	Sum of lanes	1915			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1575	✓		Normal	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2055			Normal	
21	1			✓	56.58						Bus	
22	1				31.00	✓	Sum of lanes	2055	✓		Normal	
23	1				31.00	✓	Sum of lanes	1739	✓		Normal	
24	1			✓	160.18						Bus	
25	1			✓	158.57						Bus	
26	1			✓	59.34						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	27.94	✓	Sum of lanes	1800			Normal	
30	1			✓	20.28	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	23.20		1930
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	22.93		2055
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	24.41		1936
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.61		1959
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	0	15.97	✓	1935
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	59	14.88	✓	1826
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.57	✓	1575
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
21	1	1	(untitled)											
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.31	✓	1739
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		5.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		3.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		3.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
21	1	NetworkDefault	100	100	100		0.00	
22	1	NetworkDefault	100	100	100		5.00	
23	1	NetworkDefault	100	100	100		5.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
26	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	17	17	
1x	1	41	41	
2	1	0	0	
2x	1	915	915	
3	1	96	96	
3x	1	137	137	
4	1	33	33	
4x	1	751	751	
9	1	6	6	
10	1	17	17	
11	1	6	6	
12	1	23	23	
13	1	81	81	
14	1	96	96	
15	1	81	81	
16	1	177	177	
17	1	819	819	
18	1	8	8	
19	1	33	33	
20	1	827	827	
21	1	0		0
22	1	686	686	
23	1	98	98	
24	1	0		0
25	1	0		0
26	1	0		0
27	1	784	784	
28	1	0	0	
29	1	784	784	
30	1	860	860	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	D		0	0
2	1	1	B		0	0
3	1	1	D		0	0
4	1	1	B		0	0
9	1	1	C		0	0
13	1	1	C		0	0
17	1	1	A		0	0
18	1	1	A		0	0
22	1	1	A		0	0
23	1	1	A		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)
12	1	1.92	30.00	
16	1	3.72	30.00	
21	1			5.00
26	1			5.00
29	1	3.35	30.00	
30	1	2.43	30.00	

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.00	30.00		✓	Straight	Straight Movement
1x	1	1	2/1	1x/1	18.37	30.00		✓	Offside	22.93
2	1	1	28/1	2/1	3.72	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	17.81	30.00		✓	Offside	24.41
3	1	1	14/1	3/1	2.64	30.00		✓	Straight	Straight Movement
3x	1	1	4/1	3x/1	19.46	30.00		✓	Offside	30.61
4	1	1	19/1	4/1	3.72	30.00		✓	Straight	Straight Movement
4x	1	1	1/1	4x/1	18.06	30.00		✓	Offside	23.20
9	1	1	11/1	9/1	3.00	30.00		✓	Straight	Straight Movement
10	1	1	12/1	10/1	1.00	30.00		✓	Straight	Straight Movement
11	1	1	12/1	11/1	1.00	30.00		✓	Straight	Straight Movement
13	1	1	15/1	13/1	2.64	30.00		✓	Straight	Straight Movement
14	1	1	16/1	14/1	1.00	30.00		✓	Straight	Straight Movement
15	1	1	16/1	15/1	1.00	30.00		✓	Straight	Straight Movement
17	1	1	20/1	17/1	3.72	30.00		✓	Straight	Straight Movement
18	1	1	21/1	18/1	3.72	30.00		✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Straight	Straight Movement
20	1	1	30/1	20/1	2.28	30.00		✓	Straight	Straight Movement
22	1	1	27/1	22/1	3.72	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	3.72	30.00		✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00		✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
1x	1	2	13/1	1x/1	18.37	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	17.81	30.00		✓	Nearside	15.97
3x	1	2	9/1	3x/1	19.46	30.00		✓	Straight	Straight Movement
4x	1	2	13/1	4x/1	18.06	30.00		✓	Nearside	14.88
18	1	2	20/1	18/1	3.72	30.00		✓	Straight	Straight Movement
23	1	2	26/1	23/1	3.72	30.00		✓	Straight	Straight Movement
1x	1	3	18/1	1x/1	18.37	30.00		✓	Nearside	6.57
2x	1	3	17/1	2x/1	17.81	30.00		✓	Straight	Straight Movement
3x	1	3	23/1	3x/1	19.46	30.00		✓	Nearside	13.31
4x	1	3	22/1	4x/1	18.06	30.00		✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	6	17	0	0	0	0
	2	0	0	98	686	0	0	0	0
	3	33	96	0	48	0	0	0	0
	4	8	819	33	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1	#0000FF
	2	(untitled)	29/1, 26/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1	#FF0000
	4	(untitled)	30/1, 21/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	23		1	4	12/1, 10/1, 1/1, 4x/1	Normal	17
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	0
	25		1	3	12/1, 11/1, 9/1, 3x/1	Normal	6
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	96
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	48
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	33
	32		2	4	29/1, 27/1, 22/1, 4x/1	Normal	686
	33		2	3	29/1, 27/1, 23/1, 3x/1	Normal	98
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	0
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	33
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	819
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	8

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		1	74

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	0	0	Traffic	
	B	(untitled)	7	0	0	Traffic	
	C	(untitled)	7	0	0	Traffic	
	D	(untitled)	7	0	0	Traffic	
	E		13	0	0	Pedestrian	0
	F		13	0	0	Cycle	

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E, F	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	74	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A		6	6	6	7	7
	B	6		6	6	7	7
	C	6	6		6	7	7
	D	6	6	6		7	7
	E	8	8	8	8		
	F	8	8	8	8		

Banned Stage transitions for Controller Stream 1

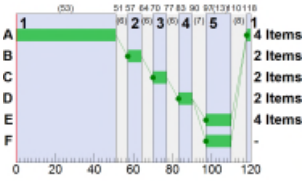
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	1	1	D	83	90	7
2	1	1	1	B	57	64	7
3	1	1	1	D	83	90	7
4	1	1	1	B	57	64	7
9	1	1	1	C	70	77	7
13	1	1	1	C	70	77	7
17	1	1	1	A	118	51	53
18	1	1	1	A	118	51	53
22	1	1	1	A	118	51	53
23	1	1	1	A	118	51	53

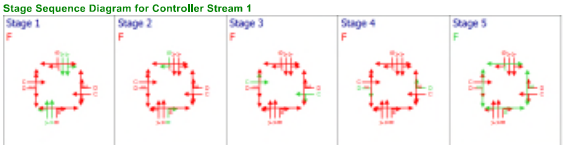
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	13	581	17	1930	7	54.86	0.54	13.47	3.68	0.20	3.88
	1x	1	0	Unrestricted	41	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	0	Unrestricted	0	2055	7	0.00	0.00	0.00	0.00	0.00	0.00
	2x	1	0	Unrestricted	915	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	74	21	96	1936	7	91.69	4.10	136.61	34.72	1.50	36.22
	3x	1	0	Unrestricted	137	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	25	256	33	1959	7	57.81	1.08	21.57	7.53	0.40	7.93
	4x	1	0	Unrestricted	751	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	5	1835	6	1935	7	53.41	0.19	4.70	1.26	0.07	1.33
	10	1	1	10779	17	2055	120	0.01	0.00	0.00	0.00	0.00	0.00
	11	1	0	28625	6	1915	120	0.00	0.00	0.00	0.00	0.00	0.00
	12	1	1	7393	23	1915	120	0.01	0.00	0.00	0.00	0.00	0.00
	13	1	67	35	81	1826	7	82.37	3.25	108.50	26.32	1.20	27.52
	14	1	5	1827	96	2055	120	0.04	0.00	0.11	0.02	0.00	0.02
	15	1	4	2028	81	1915	120	0.04	0.00	0.09	0.01	0.00	0.01
	16	1	9	874	177	1915	120	0.10	0.00	0.09	0.07	0.00	0.07
	17	1	89	2	819	2055	53	44.18	27.98	559.64	142.71	10.32	153.03
	18	1	1	7873	8	1575	53	18.45	0.15	2.93	0.58	0.05	0.64
	19	1	2	5505	33	2055	120	0.01	0.00	0.00	0.00	0.00	0.00
	20	1	40	124	827	2055	120	0.59	0.14	4.51	1.92	0.00	1.92
	21	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	22	1	74	21	686	2055	53	32.76	19.91	398.30	88.63	7.31	95.94
	23	1	13	619	98	1739	53	19.57	1.89	37.75	7.56	0.70	8.26
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	26	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	38	136	784	2055	120	0.54	0.12	3.92	1.67	0.00	1.67
	28	1	0	Unrestricted	0	2055	120	0.00	0.00	0.00	0.00	0.00	0.00
	29	1	44	107	784	1800	120	0.77	0.17	3.45	2.38	0.00	2.38
	30	1	48	88	860	1800	120	0.91	0.22	6.19	3.10	0.00	3.10

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	(ALL)	(ALL)	0	0	11000	13	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	0.0	78.8	78.9	0.0	0.0	0.0	0.0
	2	0.0	0.0	49.7	61.5	0.0	0.0	0.0	0.0
	3	108.2	117.0	0.0	107.9	0.0	0.0	0.0	0.0
	4	46.8	71.9	86.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
23	1	4	17		78.86		198.54	0.00	0.00	0.00	17	78.86	198.54
24	1	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
25	1	3	6		78.81		210.17	0.00	0.00	0.00	6	78.81	210.17
26	3	2	96		116.99		207.38	0.00	0.00	0.00	96	116.99	207.38
27	3	4	48		107.93		209.54	0.00	0.00	0.00	48	107.93	209.54
28	3	1	33		108.23		212.05	0.00	0.00	0.00	33	108.23	212.05
32	2	4	686		61.48		228.47	0.00	0.00	0.00	686	61.48	228.47
33	2	3	98		49.69		240.11	0.00	0.00	0.00	98	49.69	240.11
34	2	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
35	4	3	33		86.63		232.45	0.00	0.00	0.00	33	86.63	232.45
36	4	2	819		71.92		218.66	0.00	0.00	0.00	819	71.92	218.66
37	4	1	8		46.76		223.33	0.00	0.00	0.00	8	46.76	223.33

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	D	17	1930	7	13	581	57.86	54.86	94.11	0.54	100
1x	1					41	Unrestricted	120	0	Unrestricted	18.37	0.00	0.00	0.00	100
2	1		1	1	B	0	2055	7	0	Unrestricted	0.00	0.00	0.00	0.00	100
2x	1					915	Unrestricted	120	0	Unrestricted	17.81	0.00	0.00	0.00	100
3	1		1	1	D	96 <	1936	7	74	21	94.33	91.69	124.86	4.10 +	100
3x	1					137	Unrestricted	120	0	Unrestricted	19.46	0.00	0.00	0.00	100
4	1		1	1	B	33	1959	7	25	256	61.53	57.81	97.00	1.08	100
4x	1					751	Unrestricted	120	0	Unrestricted	18.06	0.00	0.00	0.00	100
9	1		1	1	C	6	1935	7	5	1835	56.41	53.41	92.91	0.19	100
10	1		1			17	2055	120	1	10779	1.01	0.01	0.00	0.00	100
11	1		1			6	1915	120	0	28625	1.00	0.00	0.00	0.00	100
12	1		1			23	1915	120	1	7393	1.93	0.01	0.00	0.00	100
13	1		1	1	C	81 <	1826	7	67	35	85.01	82.37	118.20	3.25 +	100
14	1		1			96	2055	120	5	1827	1.04	0.04	0.00	0.00	100
15	1		1			81	1915	120	4	2028	1.04	0.04	0.00	0.00	100
16	1		1			177	1915	120	9	874	3.82	0.10	0.00	0.00	100
17	1		1	1	A	819 <	2055	53	89	2	47.90	44.18	100.48	27.98 +	100
18	1		1	1	A	8	1575	53	1	7873	22.17	18.45	54.04	0.15	100
19	1		1			33	2055	120	2	5505	2.29	0.01	0.00	0.00	100
20	1		1			827	2055	120	40	124	2.87	0.59	0.00	0.14	100
21	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
22	1		1	1	A	686 <	2055	53	74	21	36.48	32.76	84.93	19.91 +	100
23	1		1	1	A	98	1739	53	13	619	23.29	19.57	56.79	1.89	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
26	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1		1			784	2055	120	38	136	2.82	0.54	0.00	0.12	100
28	1		1			0	2055	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
29	1		1			784	1800	120	44	107	4.12	0.77	0.00	0.17	100
30	1		1			860	1800	120	48	88	3.35	0.91	0.00	0.22	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	E	0	11000	13	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	410.40	36.38	11.28	22.69	322.17	21.75	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	410.40	36.38	11.28	22.69	322.17	21.75	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Version: 16.1.6.2289

Filename: Junction 4 DN 2043.t16
Path: G:\2023\p230156\calcs\transyt
Report generation date: 21/01/2025 16:07:43

Summary of network performance

	AM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	2043 DN AM - 2043				
Network	A1 D1	9935.59	692.35	186% (TS 22/1)	5 (13%)

	PM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	2043 DN PM - 2043				
Network	A2 D2	8002.51	556.47	161% (TS 4/1)	6 (16%)

File summary

File description

File title	(untitled)
Location	
Site number	
Driving side	Left
Date	21/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HEADOFFICE\GarveyD
Description	

Model and Results

Display journey time results	Display OD matrix distances	Display excess queue results	Display separate uniform and random results	Display TRANSYT 12 style timings	Display effective greens in results

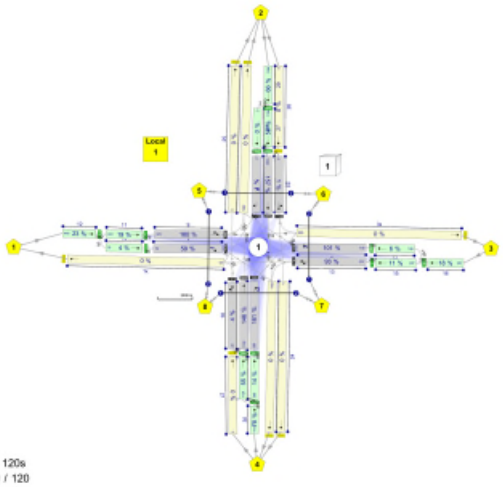
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Traffic units input	Traffic units results
€	kph	m	mpg	l/h	PCU	PCU

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
Cycletime 0s / 120s
Timesteps 119 / 120
2, 2
Diagram produced using TRANSYT 16.1.6.2289

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 21	No traffic node specified for arm(s): 21, 26
Info	Traffic Stream Flows	Arm 21 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 21/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 26 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 26/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	9935.59	692.35	185.56	22/1	5	13	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
2043 DN AM			✓	D1		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2043	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	74	74	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
1		NONE		1
1x		NONE		
2		NONE		1
2x		NONE		
3		NONE		1
3x		NONE		
4		NONE		1
4x		NONE		
9		NONE		1
10		NONE		1
11		NONE		1
12		NONE		1
13		NONE		1
14		NONE		1
15		NONE		1
16		NONE		1
17		NONE		1
18		NONE		1
19		NONE		1
20		NONE		1
21		NONE		
22		NONE		1
23		NONE		1
24		NONE		
25		NONE		
26		NONE		
27		NONE		1
28		NONE		1
29		NONE		1
30		NONE		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1				25.00	✓	Sum of lanes	1930	✓		Normal	
1x	1			✓	153.05						Normal	
2	1				31.00	✓	Sum of lanes	1929	✓		Normal	
2x	1			✓	148.38						Normal	
3	1				22.00	✓	Sum of lanes	1936	✓		Normal	
3x	1			✓	162.17						Normal	
4	1				31.00	✓	Sum of lanes	1959	✓		Normal	
4x	1			✓	150.54						Normal	
9	1				25.00	✓	Sum of lanes	1857	✓		Normal	
10	1				7.00	✓	Sum of lanes	2055			Normal	
11	1				7.00	✓	Sum of lanes	1915			Normal	
12	1				16.00	✓	Sum of lanes	1915			Normal	
13	1				22.00	✓	Sum of lanes	1779	✓		Normal	
14	1				6.00	✓	Sum of lanes	2055			Normal	
15	1				6.00	✓	Sum of lanes	1915			Normal	
16	1				31.00	✓	Sum of lanes	1915			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1575	✓		Normal	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2055			Normal	
21	1			✓	56.58						Bus	
22	1				31.00	✓	Sum of lanes	2055	✓		Normal	
23	1				31.00	✓	Sum of lanes	1739	✓		Normal	
24	1			✓	160.18						Bus	
25	1			✓	158.57						Bus	
26	1			✓	59.34						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	27.94	✓	Sum of lanes	1800			Normal	
30	1			✓	20.28	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	23.20		1930
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	22.93		1929
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	24.41		1936
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.61		1959
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	45	15.97	✓	1857
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	87	14.88	✓	1779
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.57	✓	1575
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
21	1	1	(untitled)											
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.31	✓	1739
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		5.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		3.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		3.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
21	1	NetworkDefault	100	100	100		0.00	
22	1	NetworkDefault	100	100	100		5.00	
23	1	NetworkDefault	100	100	100		5.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
26	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	333	333	
1x	1	169	169	
2	1	6	6	
2x	1	1190	1190	
3	1	46	46	
3x	1	628	628	
4	1	283	283	
4x	1	1602	1602	
9	1	562	562	
10	1	333	333	
11	1	562	562	
12	1	895	895	
13	1	144	144	
14	1	46	46	
15	1	144	144	
16	1	190	190	
17	1	892	892	
18	1	144	144	
19	1	283	283	
20	1	1036	1036	
21	1	0		0
22	1	1144	1144	
23	1	35	35	
24	1	0		0
25	1	0		0
26	1	0		0
27	1	1179	1179	
28	1	6	6	
29	1	1185	1185	
30	1	1319	1319	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	D		0	0
2	1	1	B		0	0
3	1	1	D		0	0
4	1	1	B		0	0
9	1	1	C		0	0
13	1	1	C		0	0
17	1	1	A		0	0
18	1	1	A		0	0
22	1	1	A		0	0
23	1	1	A		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)
12	1	1.92	30.00	
16	1	3.72	30.00	
21	1			15.00
26	1			15.00
29	1	3.35	30.00	
30	1	2.43	30.00	

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.00	30.00		✓	Straight	Straight Movement
1x	1	1	2/1	1x/1	18.37	30.00		✓	Offside	22.93
2	1	1	28/1	2/1	3.72	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	17.81	30.00		✓	Offside	24.41
3	1	1	14/1	3/1	2.64	30.00		✓	Straight	Straight Movement
3x	1	1	4/1	3x/1	19.46	30.00		✓	Offside	30.61
4	1	1	19/1	4/1	3.72	30.00		✓	Straight	Straight Movement
4x	1	1	1/1	4x/1	18.06	30.00		✓	Offside	23.20
9	1	1	11/1	9/1	3.00	30.00		✓	Straight	Straight Movement
10	1	1	12/1	10/1	1.00	30.00		✓	Straight	Straight Movement
11	1	1	12/1	11/1	1.00	30.00		✓	Straight	Straight Movement
13	1	1	15/1	13/1	2.64	30.00		✓	Straight	Straight Movement
14	1	1	16/1	14/1	1.00	30.00		✓	Straight	Straight Movement
15	1	1	16/1	15/1	1.00	30.00		✓	Straight	Straight Movement
17	1	1	20/1	17/1	3.72	30.00		✓	Straight	Straight Movement
18	1	1	21/1	18/1	3.72	30.00		✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Straight	Straight Movement
20	1	1	30/1	20/1	2.28	30.00		✓	Straight	Straight Movement
22	1	1	27/1	22/1	3.72	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	3.72	30.00		✓	Straight	Straight Movement
24	1	1	23/1	24/1			15.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			15.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00		✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
1x	1	2	13/1	1x/1	18.37	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	17.81	30.00		✓	Nearside	15.97
3x	1	2	9/1	3x/1	19.46	30.00		✓	Straight	Straight Movement
4x	1	2	13/1	4x/1	18.06	30.00		✓	Nearside	14.88
18	1	2	20/1	18/1	3.72	30.00		✓	Straight	Straight Movement
23	1	2	26/1	23/1	3.72	30.00		✓	Straight	Straight Movement
1x	1	3	18/1	1x/1	18.37	30.00		✓	Nearside	6.57
2x	1	3	17/1	2x/1	17.81	30.00		✓	Straight	Straight Movement
3x	1	3	23/1	3x/1	19.46	30.00		✓	Nearside	13.31
4x	1	3	22/1	4x/1	18.06	30.00		✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	262	310	333	0	0	0	0
	2	6	0	35	1144	0	0	0	0
	3	19	46	0	125	0	0	0	0
	4	144	892	283	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1	#0000FF
	2	(untitled)	29/1, 26/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1	#FF0000
	4	(untitled)	30/1, 21/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	23		1	4	12/1, 10/1, 1/1, 4x/1	Normal	333
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	252
	25		1	3	12/1, 11/1, 9/1, 3x/1	Normal	310
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	46
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	125
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	19
	32		2	4	29/1, 27/1, 22/1, 4x/1	Normal	1144
	33		2	3	29/1, 27/1, 23/1, 3x/1	Normal	35
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	6
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	283
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	892
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	144

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		1	74

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	0	0	Traffic	
	B	(untitled)	7	0	0	Traffic	
	C	(untitled)	7	0	0	Traffic	
	D	(untitled)	7	0	0	Traffic	
	E		13	0	0	Pedestrian	0
	F		13	0	0	Cycle	

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E, F	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	74	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A		6	6	6	7	7
	B	6		6	6	7	7
	C	6	6		6	7	7
	D	6	6	6		7	7
	E	8	8	8	8		
	F	8	8	8	8		

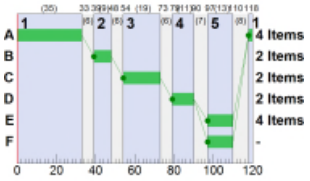
Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

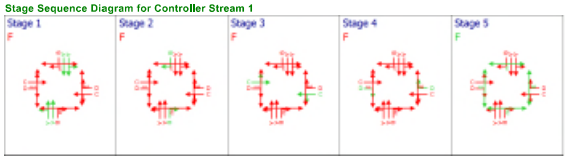
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	1	1	D	79	90	11
2	1	1	1	B	39	48	9
3	1	1	1	D	79	90	11
4	1	1	1	B	39	48	9
9	1	1	1	C	54	73	19
13	1	1	1	C	54	73	19
17	1	1	1	A	118	33	35
18	1	1	1	A	118	33	35
22	1	1	1	A	118	33	35
23	1	1	1	A	118	33	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:00-09:00	1	1	173	-48	333	1930	11	795.33	77.05	1926.32	1044.67	10.42	1055.09
	1x	1	0	Unrestricted	169	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	4	2311	6	1929	9	51.31	0.18	3.68	1.21	0.07	1.28
	2x	1	0	Unrestricted	801	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	24	279	46	1936	11	52.71	1.44	48.08	9.56	0.54	10.10
	3x	1	0	Unrestricted	369	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	173	-48	283	1959	9	801.82	65.93	1318.69	895.06	8.86	903.92
	4x	1	0	Unrestricted	935	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	182	-50	562	1857	19	840.13	137.09	3427.15	1862.38	17.50	1879.88
	10	1	16	455	333	2055	120	0.17	0.02	1.57	0.22	0.00	0.22
	11	1	29	207	562	1915	120	0.39	0.06	6.09	0.87	0.00	0.87
	12	1	47	93	895	1915	120	0.82	0.20	10.24	2.91	0.00	2.91
	13	1	49	85	144	1779	19	51.02	4.55	151.57	28.98	1.69	30.67
	14	1	2	3921	46	2055	120	0.02	0.00	0.03	0.00	0.00	0.00
	15	1	8	1097	144	1915	120	0.08	0.00	0.31	0.04	0.00	0.04
	16	1	10	807	190	1915	120	0.10	0.01	0.11	0.08	0.00	0.08
	17	1	145	-38	892	2055	35	589.42	159.23	3184.62	2073.83	27.93	2101.77
	18	1	30	195	144	1575	35	34.03	3.75	74.93	19.33	1.39	20.72
	19	1	14	554	283	2055	120	0.14	0.01	0.37	0.16	0.00	0.16
	20	1	50	79	1036	2055	120	0.89	0.26	8.53	3.63	0.00	3.63
	21	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	22	1	186	-51	1144	2055	35	854.44	284.71	5694.19	3855.63	35.52	3891.15
	23	1	7	1242	35	1739	35	30.29	0.83	16.58	4.18	0.31	4.49
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	26	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	57	57	1179	2055	120	1.18	0.39	12.84	5.47	0.00	5.47
	28	1	0	30725	6	2055	120	0.00	0.00	0.00	0.00	0.00	0.00
	29	1	66	37	1185	1800	120	1.92	0.63	13.00	8.97	0.00	8.97
	30	1	73	23	1319	1800	120	2.72	1.00	28.29	14.17	0.00	14.17

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
08:00-09:00	(ALL)	(ALL)	0	0	11000	13	0.00	0.00	0.00	0.00

Network Results

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	9935.59	692.35	185.56	22/1	5	13	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:00-09:00	186	-51	13041	2618	9831.36	104.23	9935.59

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
08:00-09:00	0	0	104	0.00	0.00	0.00

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

From \ To	1	2	3	4	5	6	7	8
1	0.0	865.1	866.7	820.3	0.0	0.0	0.0	0.0
2	80.9	0.0	62.2	885.0	0.0	0.0	0.0	0.0
3	76.9	78.0	0.0	76.6	0.0	0.0	0.0	0.0
4	64.4	619.3	832.6	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
23	1	4	333		820.31		198.54	0.00	0.00	0.00	333	820.31	198.54
24	1	2	252		865.07		196.38	0.00	0.00	0.00	252	865.07	196.38
25	1	3	310		866.73		210.17	0.00	0.00	0.00	310	866.73	210.17
26	3	2	46		78.00		207.38	0.00	0.00	0.00	46	78.00	207.38
27	3	4	125		76.63		209.54	0.00	0.00	0.00	125	76.63	209.54
28	3	1	19		76.93		212.05	0.00	0.00	0.00	19	76.93	212.05
32	2	4	1144		884.96		228.47	0.00	0.00	0.00	1144	884.96	228.47
33	2	3	35		62.20		240.11	0.00	0.00	0.00	35	62.20	240.11
34	2	1	6		80.95		230.99	0.00	0.00	0.00	6	80.95	230.99
35	4	3	283		832.58		232.45	0.00	0.00	0.00	283	832.58	232.45
36	4	2	892		619.27		218.66	0.00	0.00	0.00	892	619.27	218.66
37	4	1	144		64.45		223.33	0.00	0.00	0.00	144	64.45	223.33

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase		Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	D		333 <	1930	11	173	-48	798.33	795.33	430.78	77.05 +	100
1x	1						169	Unrestricted	120	0	Unrestricted	18.37	0.00	0.00	0.00	100
2	1		1	1	B		6	1929	9	4	2311	55.03	51.31	91.04	0.18	100
2x	1						801	Unrestricted	120	0	Unrestricted	17.81	0.00	0.00	0.00	100
3	1		1	1	D		46	1936	11	24	279	55.35	52.71	93.07	1.44	100
3x	1						369	Unrestricted	120	0	Unrestricted	19.46	0.00	0.00	0.00	100
4	1		1	1	B		283 <	1959	9	173	-48	805.54	801.82	432.70	65.93 +	100
4x	1						935	Unrestricted	120	0	Unrestricted	18.06	0.00	0.00	0.00	100
9	1		1	1	C		562 <	1857	19	182	-50	843.13	840.13	450.87	137.09 +	100
10	1		1				333	2055	120	16	455	1.17	0.17	0.00	0.02	100
11	1		1				562	1915	120	29	207	1.39	0.39	0.00	0.06	100
12	1		1				895	1915	120	47	93	2.74	0.82	0.00	0.20	100
13	1		1	1	C		144 <	1779	19	49	85	53.66	51.02	93.69	4.55 +	100
14	1		1				46	2055	120	2	3921	1.02	0.02	0.00	0.00	100
15	1		1				144	1915	120	8	1097	1.08	0.08	0.00	0.00	100
16	1		1				190	1915	120	10	807	3.82	0.10	0.00	0.01	100
17	1		1	1	A		892 <	2055	35	145	-38	593.14	589.42	361.36	159.23 +	100
18	1		1	1	A		144	1575	35	30	195	37.75	34.03	76.99	3.75	100
19	1		1				283	2055	120	14	554	2.42	0.14	0.00	0.01	100
20	1		1				1036	2055	120	50	79	3.17	0.89	0.00	0.26	100
21	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
22	1		1	1	A		1144 <	2055	35	186	-51	858.16	854.44	459.53	284.71 +	100
23	1		1	1	A		35	1739	35	7	1242	34.01	30.29	70.05	0.83	100
24	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
26	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1		1				1179	2055	120	57	57	3.46	1.18	0.00	0.39	100
28	1		1				6	2055	120	0	30725	2.28	0.00	0.00	0.00	100
29	1		1				1185	1800	120	66	37	5.27	1.92	0.00	0.63	100
30	1		1				1319	1800	120	73	23	5.16	2.72	0.00	1.00	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED			QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	E	0	11000	13	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	584.50	711.89	0.82	692.35	9831.36	104.23	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	584.50	711.89	0.82	692.35	9831.36	104.23	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 21	No traffic node specified for arm(s): 21, 26
Info	Traffic Stream Flows	Arm 21 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 21/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 26 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 26/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	8002.51	556.47	160.94	4/1	6	16	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
2043 DN PM			✓	D2		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2043	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	74	74	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
1		NONE		1
1x		NONE		
2		NONE		1
2x		NONE		
3		NONE		1
3x		NONE		
4		NONE		1
4x		NONE		
9		NONE		1
10		NONE		1
11		NONE		1
12		NONE		1
13		NONE		1
14		NONE		1
15		NONE		1
16		NONE		1
17		NONE		1
18		NONE		1
19		NONE		1
20		NONE		1
21		NONE		
22		NONE		1
23		NONE		1
24		NONE		
25		NONE		
26		NONE		
27		NONE		1
28		NONE		1
29		NONE		1
30		NONE		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1				25.00	✓	Sum of lanes	1930	✓		Normal	
1x	1			✓	153.05						Normal	
2	1				31.00	✓	Sum of lanes	1929	✓		Normal	
2x	1			✓	148.38						Normal	
3	1				22.00	✓	Sum of lanes	1936	✓		Normal	
3x	1			✓	162.17						Normal	
4	1				31.00	✓	Sum of lanes	1959	✓		Normal	
4x	1			✓	150.54						Normal	
9	1				25.00	✓	Sum of lanes	1860	✓		Normal	
10	1				7.00	✓	Sum of lanes	2055			Normal	
11	1				7.00	✓	Sum of lanes	1915			Normal	
12	1				16.00	✓	Sum of lanes	1915			Normal	
13	1				22.00	✓	Sum of lanes	1781	✓		Normal	
14	1				6.00	✓	Sum of lanes	2055			Normal	
15	1				6.00	✓	Sum of lanes	1915			Normal	
16	1				31.00	✓	Sum of lanes	1915			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1575	✓		Normal	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2055			Normal	
21	1			✓	56.58						Bus	
22	1				31.00	✓	Sum of lanes	2055	✓		Normal	
23	1				31.00	✓	Sum of lanes	1739	✓		Normal	
24	1			✓	160.18						Bus	
25	1			✓	158.57						Bus	
26	1			✓	59.34						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	27.94	✓	Sum of lanes	1800			Normal	
30	1			✓	20.28	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	23.20		1930
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	22.93		1929
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	24.41		1936
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.61		1959
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	43	15.97	✓	1860
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	86	14.88	✓	1781
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.57	✓	1575
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
21	1	1	(untitled)											
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.31	✓	1739
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		5.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		3.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		3.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
21	1	NetworkDefault	100	100	100		0.00	
22	1	NetworkDefault	100	100	100		5.00	
23	1	NetworkDefault	100	100	100		5.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
26	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	76	76	
1x	1	52	52	
2	1	2	2	
2x	1	1392	1392	
3	1	130	130	
3x	1	505	505	
4	1	289	289	
4x	1	1435	1435	
9	1	372	372	
10	1	76	76	
11	1	372	372	
12	1	448	448	
13	1	207	207	
14	1	130	130	
15	1	207	207	
16	1	337	337	
17	1	1102	1102	
18	1	22	22	
19	1	289	289	
20	1	1124	1124	
21	1	0		0
22	1	1180	1180	
23	1	4	4	
24	1	0		0
25	1	0		0
26	1	0		0
27	1	1184	1184	
28	1	2	2	
29	1	1186	1186	
30	1	1413	1413	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	D		0	0
2	1	1	B		0	0
3	1	1	D		0	0
4	1	1	B		0	0
9	1	1	C		0	0
13	1	1	C		0	0
17	1	1	A		0	0
18	1	1	A		0	0
22	1	1	A		0	0
23	1	1	A		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)
12	1	1.92	30.00	
16	1	3.72	30.00	
21	1			15.00
26	1			15.00
29	1	3.35	30.00	
30	1	2.43	30.00	

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.00	30.00		✓	Straight	Straight Movement
1x	1	1	2/1	1x/1	18.37	30.00		✓	Offside	22.93
2	1	1	28/1	2/1	3.72	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	17.81	30.00		✓	Offside	24.41
3	1	1	14/1	3/1	2.64	30.00		✓	Straight	Straight Movement
3x	1	1	4/1	3x/1	19.46	30.00		✓	Offside	30.61
4	1	1	19/1	4/1	3.72	30.00		✓	Straight	Straight Movement
4x	1	1	1/1	4x/1	18.06	30.00		✓	Offside	23.20
9	1	1	11/1	9/1	3.00	30.00		✓	Straight	Straight Movement
10	1	1	12/1	10/1	1.00	30.00		✓	Straight	Straight Movement
11	1	1	12/1	11/1	1.00	30.00		✓	Straight	Straight Movement
13	1	1	15/1	13/1	2.64	30.00		✓	Straight	Straight Movement
14	1	1	16/1	14/1	1.00	30.00		✓	Straight	Straight Movement
15	1	1	16/1	15/1	1.00	30.00		✓	Straight	Straight Movement
17	1	1	20/1	17/1	3.72	30.00		✓	Straight	Straight Movement
18	1	1	21/1	18/1	3.72	30.00		✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Straight	Straight Movement
20	1	1	30/1	20/1	2.28	30.00		✓	Straight	Straight Movement
22	1	1	27/1	22/1	3.72	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	3.72	30.00		✓	Straight	Straight Movement
24	1	1	23/1	24/1			15.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			15.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00		✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
1x	1	2	13/1	1x/1	18.37	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	17.81	30.00		✓	Nearside	15.97
3x	1	2	9/1	3x/1	19.46	30.00		✓	Straight	Straight Movement
4x	1	2	13/1	4x/1	18.06	30.00		✓	Nearside	14.88
18	1	2	20/1	18/1	3.72	30.00		✓	Straight	Straight Movement
23	1	2	26/1	23/1	3.72	30.00		✓	Straight	Straight Movement
1x	1	3	18/1	1x/1	18.37	30.00		✓	Nearside	6.57
2x	1	3	17/1	2x/1	17.81	30.00		✓	Straight	Straight Movement
3x	1	3	23/1	3x/1	19.46	30.00		✓	Nearside	13.31
4x	1	3	22/1	4x/1	18.06	30.00		✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

From \ To	1	2	3	4	5	6	7	8
1	0	169	212	76	0	0	0	0
2	2	0	4	1180	0	0	0	0
3	28	130	0	179	0	0	0	0
4	22	1102	289	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1	#0000FF
	2	(untitled)	29/1, 26/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1	#FF0000
	4	(untitled)	30/1, 21/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	23		1	4	12/1, 10/1, 1/1, 4x/1	Normal	76
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	160
	25		1	3	12/1, 11/1, 9/1, 3x/1	Normal	212
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	130
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	179
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	28
	32		2	4	29/1, 27/1, 22/1, 4x/1	Normal	1180
	33		2	3	29/1, 27/1, 23/1, 3x/1	Normal	4
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	2
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	289
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	1102
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	22

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		1	74

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	0	0	Traffic	
	B	(untitled)	7	0	0	Traffic	
	C	(untitled)	7	0	0	Traffic	
	D	(untitled)	7	0	0	Traffic	
	E		13	0	0	Pedestrian	0
	F		13	0	0	Cycle	

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E, F	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	74	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F
A		6	6	6	7	7
B	6		6	6	7	7
C	6	6		6	7	7
D	6	6	6		7	7
E	8	8	8	8		
F	8	8	8	8		

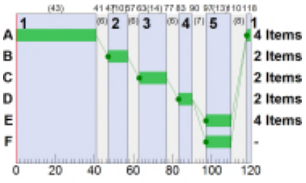
Banned Stage transitions for Controller Stream 1

From \ To	1	2	3	4	5
1					
2					
3					
4					
5					

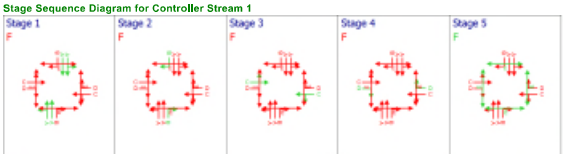
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	1	1	D	83	90	7
2	1	1	1	B	47	57	10
3	1	1	1	D	83	90	7
4	1	1	1	B	47	57	10
9	1	1	1	C	63	77	14
13	1	1	1	C	63	77	14
17	1	1	1	A	118	41	43
18	1	1	1	A	118	41	43
22	1	1	1	A	118	41	43
23	1	1	1	A	118	41	43

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	59	52	76	1930	7	73.88	2.86	71.49	22.15	1.06	23.21
	1x	1	0	Unrestricted	52	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	1	7857	2	1929	10	50.07	0.00	0.00	0.40	0.02	0.42
	2x	1	0	Unrestricted	983	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	101	-11	130	1936	7	207.29	9.74	324.81	106.29	3.13	109.42
	3x	1	0	Unrestricted	316	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	161	-44	289	1959	10	725.30	61.44	1228.86	826.80	9.09	835.90
	4x	1	0	Unrestricted	1009	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	160	-44	372	1860	14	715.67	78.25	1956.19	1050.13	11.70	1061.83
	10	1	4	2334	76	2055	120	0.03	0.00	0.07	0.01	0.00	0.01
	11	1	19	363	372	1915	120	0.23	0.02	2.34	0.33	0.00	0.33
	12	1	23	285	448	1915	120	0.29	0.04	1.79	0.51	0.00	0.51
	13	1	93	-3	207	1781	14	118.63	10.62	353.90	96.86	3.78	100.64
	14	1	6	1323	130	2055	120	0.06	0.00	0.21	0.03	0.00	0.03
	15	1	11	733	207	1915	120	0.11	0.01	0.65	0.09	0.00	0.09
	16	1	18	411	337	1915	120	0.20	0.02	0.38	0.27	0.00	0.27
	17	1	146	-38	1102	2055	43	598.71	200.23	4004.51	2602.46	34.54	2637.00
	18	1	4	2263	22	1575	43	24.55	0.47	9.43	2.13	0.17	2.30
	19	1	14	540	289	2055	120	0.14	0.01	0.38	0.16	0.00	0.16
	20	1	55	65	1124	2055	120	1.06	0.33	10.99	4.68	0.00	4.68
	21	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	22	1	157	-43	1180	2055	43	677.53	239.03	4780.66	3153.53	37.09	3190.62
	23	1	1	14247	4	1739	43	24.40	0.08	1.69	0.39	0.03	0.42
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	26	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	58	56	1184	2055	120	1.19	0.39	13.02	5.55	0.00	5.55
	28	1	0	92375	2	2055	120	0.00	0.00	0.00	0.00	0.00	0.00
	29	1	66	37	1186	1800	120	1.92	0.83	13.04	9.00	0.00	9.00
	30	1	79	15	1413	1800	120	3.61	1.42	40.18	20.12	0.00	20.12

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	(ALL)	(ALL)	0	0	11000	13	0.00	0.00	0.00	0.00

Network Results

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	8002.51	556.47	160.94	4/1	6	16	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	161	-44	12511	2634	7901.89	100.63	8002.51

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	0	0	104	0.00	0.00	0.00

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

From \ To	1	2	3	4	5	6	7	8
1	0.0	739.9	741.6	98.2	0.0	0.0	0.0	0.0
2	79.7	0.0	56.3	708.1	0.0	0.0	0.0	0.0
3	144.7	232.7	0.0	144.4	0.0	0.0	0.0	0.0
4	56.0	629.6	756.9	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
23	1	4	76		98.19		198.54	0.00	0.00	0.00	76	98.19	198.54
24	1	2	160		739.91		196.38	0.00	0.00	0.00	160	739.91	196.38
25	1	3	212		741.57		210.17	0.00	0.00	0.00	212	741.57	210.17
26	3	2	130		232.72		207.38	0.00	0.00	0.00	130	232.72	207.38
27	3	4	179		144.37		209.54	0.00	0.00	0.00	179	144.37	209.54
28	3	1	28		144.67		212.05	0.00	0.00	0.00	28	144.67	212.05
32	2	4	1180		708.06		228.47	0.00	0.00	0.00	1180	708.06	228.47
33	2	3	4		56.33		240.11	0.00	0.00	0.00	4	56.33	240.11
34	2	1	2		79.72		230.99	0.00	0.00	0.00	2	79.72	230.99
35	4	3	289		756.95		232.45	0.00	0.00	0.00	289	756.95	232.45
36	4	2	1102		629.62		218.66	0.00	0.00	0.00	1102	629.62	218.66
37	4	1	22		56.02		223.33	0.00	0.00	0.00	22	56.02	223.33

Final Prediction Table

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS Controller stream	SIGNALS Phase	FLOWS Calculated flow entering (PCU/hr)	FLOWS Calculated sat flow (PCU/hr)	PERFORMANCE Actual green (s (per cycle))	PERFORMANCE Degree of saturation (%)	PERFORMANCE Practical reserve capacity (%)	PER PCU JourneyTime (s)	PER PCU Mean Delay per Veh (s)	PER PCU Mean stops per Veh (%)	QUEUES Mean max queue (PCU)	WEIG Delay weighting multiplier (%)
1	1		1	1	D	76	1930	7	59	52	76.88	73.88	111.25	2.86	100
1x	1					52	Unrestricted	120	0	Unrestricted	18.37	0.00	0.00	0.00	100
2	1		1	1	B	2	1929	10	1	7857	53.79	50.07	89.85	0.00	100
2x	1					983	Unrestricted	120	0	Unrestricted	17.81	0.00	0.00	0.00	100
3	1		1	1	D	130 <	1936	7	101	-11	209.93	207.29	193.27	9.74 +	100
3x	1					316	Unrestricted	120	0	Unrestricted	19.46	0.00	0.00	0.00	100
4	1		1	1	B	289 <	1959	10	161	-44	729.02	725.30	403.82	61.44 +	100
4x	1					1009	Unrestricted	120	0	Unrestricted	18.06	0.00	0.00	0.00	100
9	1		1	1	C	372 <	1860	14	160	-44	718.67	715.67	401.40	78.25 +	100
10	1		1			76	2055	120	4	2334	1.03	0.03	0.00	0.00	100
11	1		1			372	1915	120	19	363	1.23	0.23	0.00	0.02	100
12	1		1			448	1915	120	23	285	2.21	0.29	0.00	0.04	100
13	1		1	1	C	207 <	1781	14	93	-3	121.27	118.63	145.81	10.62 +	100
14	1		1			130	2055	120	6	1323	1.06	0.06	0.00	0.00	100
15	1		1			207	1915	120	11	733	1.11	0.11	0.00	0.01	100
16	1		1			337	1915	120	18	411	3.92	0.20	0.00	0.02	100
17	1		1	1	A	1102 <	2055	43	146	-38	602.43	598.71	365.60	200.23 +	100
18	1		1	1	A	22	1575	43	4	2263	28.27	24.55	63.24	0.47	100
19	1		1			289	2055	120	14	540	2.42	0.14	0.00	0.01	100
20	1		1			1124	2055	120	55	65	3.34	1.06	0.00	0.33	100
21	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
22	1		1	1	A	1180 <	2055	43	157	-43	681.25	677.53	392.61	239.03 +	100
23	1		1	1	A	4	1739	43	1	14247	28.12	24.40	62.36	0.08	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
26	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1		1			1184	2055	120	58	56	3.47	1.19	0.00	0.39	100
28	1		1			2	2055	120	0	92375	2.28	0.00	0.00	0.00	100
29	1		1			1186	1800	120	66	37	5.28	1.92	0.00	0.63	100
30	1		1			1413	1800	120	79	15	6.04	3.61	0.00	1.42	100

Pedestrian Crossing Results

Pedestrian	Side	Name	Traffic node	SIGNALS Controller stream	SIGNALS Phase	FLOWS Calculated Flow Entering (Ped/hr)	FLOWS Calculated sat flow (Ped/hr)	PERFORMANCE Actual green (s (per cycle))	PERFORMANCE Degree of saturation (%)	PERFORMANCE Practical reserve capacity	PER PED JourneyTime (s)	PER PED Mean Delay per Ped (s)	QUEUES Mean max queue (Ped)	WEIGHTS Delay weighting (%)	P
(ALL)	(ALL)	(untitled)		1	E	0	11000	13	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	589.95	576.18	1.02	556.47	7901.89	100.63	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	589.95	576.18	1.02	556.47	7901.89	100.63	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Version: 16.1.6.2289

Filename: Junction 4 DS 2028.t16
Path: G:\2023\p230156\calcs\transyt
Report generation date: 04/02/2025 11:55:23

Summary of network performance

	AM Set ID	AM PI (€ per hr)	AM Total delay (PCU-hr/hr)	AM Highest DOS	AM Number oversaturated
	2028 DS AM - 2028				
Network	A1 D1	2230.59	152.89	117% (TS 9/1)	5 (13%)

	PM Set ID	PM PI (€ per hr)	PM Total delay (PCU-hr/hr)	PM Highest DOS	PM Number oversaturated
	2028 DS PM - 2028				
Network	A2 D2	450.04	29.85	89% (TS 17/1)	0 (0%)

File summary

File description

File title	(untitled)
Location	
Site number	
Driving side	Left
Date	21/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HEADOFFICE\GarveyD
Description	

Model and Results

Display journey time results	Display OD matrix distances	Display excess queue results	Display separate uniform and random results	Display TRANSYT 12 style timings	Display effective greens in results

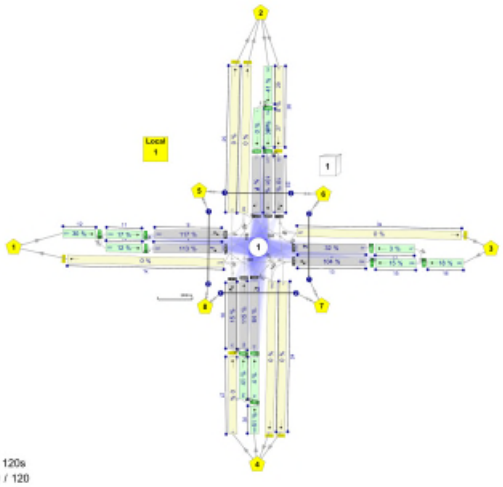
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Traffic units input	Traffic units results
€	kph	m	mpg	l/h	PCU	PCU

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	10000	10000	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
Cycletime 0s / 120s
Timesteps 119 / 120
1, 1
Diagram produced using TRANSYT 16.1.6.2289

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 21	No traffic node specified for arm(s): 21, 26
Info	Traffic Stream Flows	Arm 21 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 21/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 26 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 26/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	2230.59	152.89	117.32	9/1	5	13	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
2028 DS AM			✓	D1		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2028	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	74	74	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.80	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
1		NONE		1
1x		NONE		
2		NONE		1
2x		NONE		
3		NONE		1
3x		NONE		
4		NONE		1
4x		NONE		
9		NONE		1
10		NONE		1
11		NONE		1
12		NONE		1
13		NONE		1
14		NONE		1
15		NONE		1
16		NONE		1
17		NONE		1
18		NONE		1
19		NONE		1
20		NONE		1
21		NONE		
22		NONE		1
23		NONE		1
24		NONE		
25		NONE		
26		NONE		
27		NONE		1
28		NONE		1
29		NONE		1
30		NONE		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1				25.00	✓	Sum of lanes	1930	✓		Normal	
1x	1			✓	153.05						Normal	
2	1				31.00	✓	Sum of lanes	1929	✓		Normal	
2x	1			✓	148.38						Normal	
3	1				22.00	✓	Sum of lanes	1936	✓		Normal	
3x	1			✓	162.17						Normal	
4	1				31.00	✓	Sum of lanes	1959	✓		Normal	
4x	1			✓	150.54						Normal	
9	1				25.00	✓	Sum of lanes	1898	✓		Normal	
10	1				7.00	✓	Sum of lanes	2055			Normal	
11	1				7.00	✓	Sum of lanes	1915			Normal	
12	1				16.00	✓	Sum of lanes	1915			Normal	
13	1				22.00	✓	Sum of lanes	1839	✓		Normal	
14	1				6.00	✓	Sum of lanes	2055			Normal	
15	1				6.00	✓	Sum of lanes	1915			Normal	
16	1				31.00	✓	Sum of lanes	1915			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1575	✓		Normal	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2055			Normal	
21	1			✓	56.58						Bus	
22	1				31.00	✓	Sum of lanes	2055	✓		Normal	
23	1				31.00	✓	Sum of lanes	1739	✓		Normal	
24	1			✓	160.18						Bus	
25	1			✓	158.57						Bus	
26	1			✓	59.34						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	27.94	✓	Sum of lanes	1800			Normal	
30	1			✓	20.28	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	23.20		1930
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	22.93		1929
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	24.41		1936
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.61		1959
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	21	15.97	✓	1898
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	52	14.88	✓	1839
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.57	✓	1575
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
21	1	1	(untitled)											
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.31	✓	1739
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		5.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		3.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		3.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
21	1	NetworkDefault	100	100	100		0.00	
22	1	NetworkDefault	100	100	100		5.00	
23	1	NetworkDefault	100	100	100		5.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
26	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	237	237	
1x	1	215	215	
2	1	1	1	
2x	1	902	902	
3	1	67	67	
3x	1	407	407	
4	1	83	83	
4x	1	1062	1062	
9	1	334	334	
10	1	237	237	
11	1	334	334	
12	1	571	571	
13	1	286	286	
14	1	67	67	
15	1	286	286	
16	1	353	353	
17	1	766	766	
18	1	76	76	
19	1	83	83	
20	1	842	842	
21	1	0		0
22	1	677	677	
23	1	59	59	
24	1	0		0
25	1	0		0
26	1	0		0
27	1	736	736	
28	1	1	1	
29	1	737	737	
30	1	925	925	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	D		0	0
2	1	1	B		0	0
3	1	1	D		0	0
4	1	1	B		0	0
9	1	1	C		0	0
13	1	1	C		0	0
17	1	1	A		0	0
18	1	1	A		0	0
22	1	1	A		0	0
23	1	1	A		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)
12	1	1.92	30.00	
16	1	3.72	30.00	
21	1			5.00
26	1			5.00
29	1	3.35	30.00	
30	1	2.43	30.00	

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.00	30.00		✓	Straight	Straight Movement
1x	1	1	2/1	1x/1	18.37	30.00		✓	Offside	22.93
2	1	1	28/1	2/1	3.72	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	17.81	30.00		✓	Offside	24.41
3	1	1	14/1	3/1	2.64	30.00		✓	Straight	Straight Movement
3x	1	1	4/1	3x/1	19.46	30.00		✓	Offside	30.61
4	1	1	19/1	4/1	3.72	30.00		✓	Straight	Straight Movement
4x	1	1	1/1	4x/1	18.06	30.00		✓	Offside	23.20
9	1	1	11/1	9/1	3.00	30.00		✓	Straight	Straight Movement
10	1	1	12/1	10/1	1.00	30.00		✓	Straight	Straight Movement
11	1	1	12/1	11/1	1.00	30.00		✓	Straight	Straight Movement
13	1	1	15/1	13/1	2.64	30.00		✓	Straight	Straight Movement
14	1	1	16/1	14/1	1.00	30.00		✓	Straight	Straight Movement
15	1	1	16/1	15/1	1.00	30.00		✓	Straight	Straight Movement
17	1	1	20/1	17/1	3.72	30.00		✓	Straight	Straight Movement
18	1	1	21/1	18/1	3.72	30.00		✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Straight	Straight Movement
20	1	1	30/1	20/1	2.28	30.00		✓	Straight	Straight Movement
22	1	1	27/1	22/1	3.72	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	3.72	30.00		✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00		✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
1x	1	2	13/1	1x/1	18.37	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	17.81	30.00		✓	Nearside	15.97
3x	1	2	9/1	3x/1	19.46	30.00		✓	Straight	Straight Movement
4x	1	2	13/1	4x/1	18.06	30.00		✓	Nearside	14.88
18	1	2	20/1	18/1	3.72	30.00		✓	Straight	Straight Movement
23	1	2	26/1	23/1	3.72	30.00		✓	Straight	Straight Movement
1x	1	3	18/1	1x/1	18.37	30.00		✓	Nearside	6.57
2x	1	3	17/1	2x/1	17.81	30.00		✓	Straight	Straight Movement
3x	1	3	23/1	3x/1	19.46	30.00		✓	Nearside	13.31
4x	1	3	22/1	4x/1	18.06	30.00		✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	69	265	237	0	0	0	0
	2	1	0	59	677	0	0	0	0
	3	138	67	0	148	0	0	0	0
	4	76	766	83	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1	#0000FF
	2	(untitled)	29/1, 26/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1	#FF0000
	4	(untitled)	30/1, 21/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	23		1	4	12/1, 10/1, 1/1, 4x/1	Normal	237
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	69
	25		1	3	12/1, 11/1, 9/1, 3x/1	Normal	265
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	67
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	148
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	138
	32		2	4	29/1, 27/1, 22/1, 4x/1	Normal	677
	33		2	3	29/1, 27/1, 23/1, 3x/1	Normal	59
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	1
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	83
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	766
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	76

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		1	74

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	0	0	Traffic	
	B	(untitled)	7	0	0	Traffic	
	C	(untitled)	7	0	0	Traffic	
	D	(untitled)	7	0	0	Traffic	
	E		13	0	0	Pedestrian	0
	F		13	0	0	Cycle	

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E, F	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	74	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A		6	6	6	7	7
	B	6		6	6	7	7
	C	6	6		6	7	7
	D	6	6	6		7	7
	E	8	8	8	8		
	F	8	8	8	8		

Banned Stage transitions for Controller Stream 1

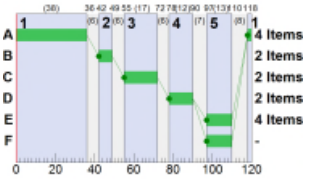
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	1	1	D	78	90	12
2	1	1	1	B	42	49	7
3	1	1	1	D	78	90	12
4	1	1	1	B	42	49	7
9	1	1	1	C	55	72	17
13	1	1	1	C	55	72	17
17	1	1	1	A	118	36	38
18	1	1	1	A	118	36	38
22	1	1	1	A	118	36	38
23	1	1	1	A	118	36	38

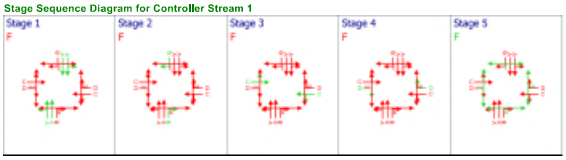
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:00-09:00	1	1	113	-21	237	1930	12	303.66	23.79	594.87	283.87	6.52	290.39
	1x	1	0	Unrestricted	210	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	1	11474	1	1929	7	52.84	0.00	0.00	0.21	0.01	0.22
	2x	1	0	Unrestricted	794	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	32	182	67	1936	12	53.44	2.12	70.73	14.12	0.79	14.91
	3x	1	0	Unrestricted	368	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	64	42	83	1959	7	77.50	3.20	64.06	25.37	1.19	26.56
	4x	1	0	Unrestricted	1020	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	117	-23	334	1898	17	336.40	36.59	914.69	443.18	9.47	452.66
	10	1	12	680	237	2055	120	0,11	0,01	0,75	0,11	0,00	0,11
	11	1	17	416	334	1915	120	0.20	0.02	1.84	0.26	0.00	0.26
	12	1	30	202	571	1915	120	0.40	0.06	3.17	0.90	0.00	0.90
	13	1	104	-13	286	1839	17	186.23	20.01	686.84	210.09	6.57	216.66
	14	1	3	2660	67	2055	120	0.03	0.00	0.05	0.01	0.00	0.01
	15	1	15	503	286	1915	120	0,16	0,01	1,31	0,19	0,00	0,19
	16	1	18	388	353	1915	120	0,21	0,02	0,42	0,30	0,00	0,30
	17	1	115	-22	766	2055	38	280.64	74.28	1485.56	847.95	20.67	868.62
	18	1	15	506	76	1575	38	29.34	1.81	36.15	8.80	0.67	9.46
	19	1	4	2128	83	2055	120	0.04	0.00	0.03	0.01	0.00	0.01
	20	1	41	120	842	2055	120	0.61	0.14	4.74	2.02	0.00	2.02
	21	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	22	1	101	-11	677	2055	38	119.74	37.08	741.64	319.76	13.10	332.86
	23	1	10	762	59	1739	38	28.68	1.37	27.33	6.68	0.51	7.18
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	26	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	36	151	736	2055	120	0.49	0.10	3.33	1.42	0.00	1.42
	28	1	0	184850	1	2055	120	0.00	0.00	0.00	0.00	0.00	0.00
	29	1	41	120	737	1800	120	0.69	0.14	2.92	2.01	0.00	2.01
	30	1	51	75	925	1800	120	1.06	0.27	7.69	3.85	0.00	3.85

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
08:00-09:00	(ALL)	(ALL)	0	0	11000	13	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

From \ To	1	2	3	4	5	6	7	8
1	0.0	360.7	362.4	328.2	0.0	0.0	0.0	0.0
2	81.3	0.0	58.7	148.3	0.0	0.0	0.0	0.0
3	212.3	78.8	0.0	212.0	0.0	0.0	0.0	0.0
4	57.8	308.5	106.5	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
23	1	4	237		328.15		198.54	0.00	0.00	0.00	237	328.15	198.54
24	1	2	69		360.72		196.38	0.00	0.00	0.00	69	360.72	196.38
25	1	3	265		362.37		210.17	0.00	0.00	0.00	265	362.37	210.17
26	3	2	67		78.84		207.38	0.00	0.00	0.00	67	78.84	207.38
27	3	4	148		212.03		209.54	0.00	0.00	0.00	148	212.03	209.54
28	3	1	138		212.33		212.05	0.00	0.00	0.00	138	212.33	212.05
32	2	4	677		148.34		228.47	0.00	0.00	0.00	677	148.34	228.47
33	2	3	59		58.68		240.11	0.00	0.00	0.00	59	58.68	240.11
34	2	1	1		81.25		230.99	0.00	0.00	0.00	1	81.25	230.99
35	4	3	83		106.49		232.45	0.00	0.00	0.00	83	106.49	232.45
36	4	2	766		308.55		218.66	0.00	0.00	0.00	766	308.55	218.66
37	4	1	76		57.81		223.33	0.00	0.00	0.00	76	57.81	223.33

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream		Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	D		237 <	1930	12	113	-21	306.66	303.66	248.83	23.79 +	100
1x	1						210	Unrestricted	120	0	Unrestricted	18.37	0.00	0.00	0.00	100
2	1		1	1	B		1	1929	7	1	11474	56.56	52.84	92.35	0.00	100
2x	1						794	Unrestricted	120	0	Unrestricted	17.81	0.00	0.00	0.00	100
3	1		1	1	D		67	1936	12	32	182	56.08	53.44	93.99	2.12	100
3x	1						368	Unrestricted	120	0	Unrestricted	19.46	0.00	0.00	0.00	100
4	1		1	1	B		83	1959	7	64	42	81.22	77.50	113.89	3.20	100
4x	1						1020	Unrestricted	120	0	Unrestricted	18.06	0.00	0.00	0.00	100
9	1		1	1	C		334 <	1898	17	117	-23	339.40	336.40	265.40	36.59 +	100
10	1		1				237	2055	120	12	680	1,11	0,11	0,00	0,01	100
11	1		1				334	1915	120	17	416	1,20	0,20	0,00	0,02	100
12	1		1				571	1915	120	30	202	2.32	0.40	0.00	0.06	100
13	1		1	1	C		286 <	1839	17	104	-13	188.87	186.23	190.02	20.01 +	100
14	1		1				67	2055	120	3	2660	1.03	0.03	0.00	0.00	100
15	1		1				286	1915	120	15	503	1,16	0,16	0,00	0,01	100
16	1		1				353	1915	120	18	388	3.93	0.21	0.00	0.02	100
17	1		1	1	A		766 <	2055	38	115	-22	284.36	280.64	246.85	74.28 *	100
18	1		1	1	A		76	1575	38	15	506	33.06	29.34	70.13	1.81	100
19	1		1				83	2055	120	4	2128	2.32	0.04	0.00	0.00	100
20	1		1				842	2055	120	41	120	2.89	0.61	0.00	0.14	100
21	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
22	1		1	1	A		677 <	2055	38	101	-11	123.46	119.74	156.41	37.08 +	100
23	1		1	1	A		59	1739	38	10	762	32.40	28.68	68.49	1.37	100
24	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
26	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1		1				736	2055	120	36	151	2,77	0,49	0,00	0,10	100
28	1		1				1	2055	120	0	184850	2.28	0.00	0.00	0.00	100
29	1		1				737	1800	120	41	120	4.04	0.69	0.00	0.14	100
30	1		1				925	1800	120	51	75	3.49	1.06	0.00	0.27	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED			QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	E	0	11000	13	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	533.77	170.74	3.13	152.89	2171.09	59.50	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	533.77	170.74	3.13	152.89	2171.09	59.50	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 21	No traffic node specified for arm(s): 21, 26
Info	Traffic Stream Flows	Arm 21 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 21/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 26 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 26/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	450.04	29.85	89.21	17/1	0	0	✓

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
2028 DS PM			✓	D2		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2028	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	74	74	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
1		NONE		1
1x		NONE		
2		NONE		1
2x		NONE		
3		NONE		1
3x		NONE		
4		NONE		1
4x		NONE		
9		NONE		1
10		NONE		1
11		NONE		1
12		NONE		1
13		NONE		1
14		NONE		1
15		NONE		1
16		NONE		1
17		NONE		1
18		NONE		1
19		NONE		1
20		NONE		1
21		NONE		
22		NONE		1
23		NONE		1
24		NONE		
25		NONE		
26		NONE		
27		NONE		1
28		NONE		1
29		NONE		1
30		NONE		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1				25.00	✓	Sum of lanes	1930	✓		Normal	
1x	1			✓	153.05						Normal	
2	1				31.00	✓	Sum of lanes	1929	✓		Normal	
2x	1			✓	148.38						Normal	
3	1				22.00	✓	Sum of lanes	1936	✓		Normal	
3x	1			✓	162.17						Normal	
4	1				31.00	✓	Sum of lanes	1959	✓		Normal	
4x	1			✓	150.54						Normal	
9	1				25.00	✓	Sum of lanes	1845	✓		Normal	
10	1				7.00	✓	Sum of lanes	2055			Normal	
11	1				7.00	✓	Sum of lanes	1915			Normal	
12	1				16.00	✓	Sum of lanes	1915			Normal	
13	1				22.00	✓	Sum of lanes	1835	✓		Normal	
14	1				6.00	✓	Sum of lanes	2055			Normal	
15	1				6.00	✓	Sum of lanes	1915			Normal	
16	1				31.00	✓	Sum of lanes	1915			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1575	✓		Normal	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2055			Normal	
21	1			✓	56.58						Bus	
22	1				31.00	✓	Sum of lanes	2055	✓		Normal	
23	1				31.00	✓	Sum of lanes	1739	✓		Normal	
24	1			✓	160.18						Bus	
25	1			✓	158.57						Bus	
26	1			✓	59.34						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	27.94	✓	Sum of lanes	1800			Normal	
30	1			✓	20.28	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	23.20		1930
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	22.93		1929
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	24.41		1936
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.61		1959
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	52	15.97	✓	1845
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	54	14.88	✓	1835
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.57	✓	1575
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
21	1	1	(untitled)											
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.31	✓	1739
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		5.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		3.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		3.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
21	1	NetworkDefault	100	100	100		0.00	
22	1	NetworkDefault	100	100	100		5.00	
23	1	NetworkDefault	100	100	100		5.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
26	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	102	102	
1x	1	184	184	
2	1	26	26	
2x	1	950	950	
3	1	104	104	
3x	1	172	172	
4	1	44	44	
4x	1	851	851	
9	1	40	40	
10	1	102	102	
11	1	40	40	
12	1	142	142	
13	1	103	103	
14	1	104	104	
15	1	103	103	
16	1	207	207	
17	1	825	825	
18	1	111	111	
19	1	44	44	
20	1	936	936	
21	1	0		0
22	1	693	693	
23	1	109	109	
24	1	0		0
25	1	0		0
26	1	0		0
27	1	802	802	
28	1	26	26	
29	1	828	828	
30	1	980	980	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	D		0	0
2	1	1	B		0	0
3	1	1	D		0	0
4	1	1	B		0	0
9	1	1	C		0	0
13	1	1	C		0	0
17	1	1	A		0	0
18	1	1	A		0	0
22	1	1	A		0	0
23	1	1	A		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)
12	1	1.92	30.00	
16	1	3.72	30.00	
21	1			5.00
26	1			5.00
29	1	3.35	30.00	
30	1	2.43	30.00	

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.00	30.00		✓	Straight	Straight Movement
1x	1	1	2/1	1x/1	18.37	30.00		✓	Offside	22.93
2	1	1	28/1	2/1	3.72	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	17.81	30.00		✓	Offside	24.41
3	1	1	14/1	3/1	2.64	30.00		✓	Straight	Straight Movement
3x	1	1	4/1	3x/1	19.46	30.00		✓	Offside	30.61
4	1	1	19/1	4/1	3.72	30.00		✓	Straight	Straight Movement
4x	1	1	1/1	4x/1	18.06	30.00		✓	Offside	23.20
9	1	1	11/1	9/1	3.00	30.00		✓	Straight	Straight Movement
10	1	1	12/1	10/1	1.00	30.00		✓	Straight	Straight Movement
11	1	1	12/1	11/1	1.00	30.00		✓	Straight	Straight Movement
13	1	1	15/1	13/1	2.64	30.00		✓	Straight	Straight Movement
14	1	1	16/1	14/1	1.00	30.00		✓	Straight	Straight Movement
15	1	1	16/1	15/1	1.00	30.00		✓	Straight	Straight Movement
17	1	1	20/1	17/1	3.72	30.00		✓	Straight	Straight Movement
18	1	1	21/1	18/1	3.72	30.00		✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Straight	Straight Movement
20	1	1	30/1	20/1	2.28	30.00		✓	Straight	Straight Movement
22	1	1	27/1	22/1	3.72	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	3.72	30.00		✓	Straight	Straight Movement
24	1	1	23/1	24/1			5.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			5.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00		✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
1x	1	2	13/1	1x/1	18.37	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	17.81	30.00		✓	Nearside	15.97
3x	1	2	9/1	3x/1	19.46	30.00		✓	Straight	Straight Movement
4x	1	2	13/1	4x/1	18.06	30.00		✓	Nearside	14.88
18	1	2	20/1	18/1	3.72	30.00		✓	Straight	Straight Movement
23	1	2	26/1	23/1	3.72	30.00		✓	Straight	Straight Movement
1x	1	3	18/1	1x/1	18.37	30.00		✓	Nearside	6.57
2x	1	3	17/1	2x/1	17.81	30.00		✓	Straight	Straight Movement
3x	1	3	23/1	3x/1	19.46	30.00		✓	Nearside	13.31
4x	1	3	22/1	4x/1	18.06	30.00		✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

From \ To	1	2	3	4	5	6	7	8
1	0	21	19	102	0	0	0	0
2	26	0	109	693	0	0	0	0
3	47	104	0	56	0	0	0	0
4	111	825	44	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1	#0000FF
	2	(untitled)	29/1, 26/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1	#FF0000
	4	(untitled)	30/1, 21/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	23		1	4	12/1, 10/1, 1/1, 4x/1	Normal	102
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	21
	25		1	3	12/1, 11/1, 9/1, 3x/1	Normal	19
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	104
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	56
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	47
	32		2	4	29/1, 27/1, 22/1, 4x/1	Normal	693
	33		2	3	29/1, 27/1, 23/1, 3x/1	Normal	109
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	26
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	44
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	825
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	111

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		1	74

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	0	0	Traffic	
	B	(untitled)	7	0	0	Traffic	
	C	(untitled)	7	0	0	Traffic	
	D	(untitled)	7	0	0	Traffic	
	E		13	0	0	Pedestrian	0
	F		13	0	0	Cycle	

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E, F	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	74	

Intergreen Matrix for Controller Stream 1

		To A	To B	To C	To D	To E	To F
From	A		6	6	6	7	7
	B	6		6	6	7	7
	C	6	6		6	7	7
	D	6	6	6		7	7
	E	8	8	8	8		
	F	8	8	8	8		

Banned Stage transitions for Controller Stream 1

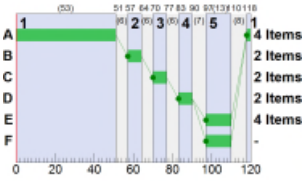
		To 1	To 2	To 3	To 4	To 5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1 Start	End	Duration
1	1	1	1	D	83	90	7
2	1	1	1	B	57	64	7
3	1	1	1	D	83	90	7
4	1	1	1	B	57	64	7
9	1	1	1	C	70	77	7
13	1	1	1	C	70	77	7
17	1	1	1	A	118	51	53
18	1	1	1	A	118	51	53
22	1	1	1	A	118	51	53
23	1	1	1	A	118	51	53

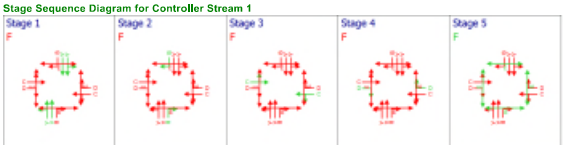
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	79	14	102	1930	7	101.45	4.65	116.34	40.82	1.69	42.51
	1x	1	0	Unrestricted	184	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	20	345	26	1929	7	56.59	0.84	16.83	5.80	0.31	6.12
	2x	1	0	Unrestricted	950	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	81	12	104	1936	7	104.42	4.83	160.98	42.84	1.75	44.59
	3x	1	0	Unrestricted	172	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	34	167	44	1959	7	60.45	1.48	29.56	10.49	0.55	11.04
	4x	1	0	Unrestricted	851	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	33	177	40	1845	7	60.46	1.34	33.61	9.54	0.50	10.04
	10	1	5	1713	102	2055	120	0.05	0.00	0.13	0.02	0.00	0.02
	11	1	2	4209	40	1915	120	0.02	0.00	0.02	0.00	0.00	0.00
	12	1	7	1114	142	1915	120	0.08	0.00	0.15	0.04	0.00	0.04
	13	1	84	7	103	1835	7	117.19	5.14	171.47	47.61	1.84	49.45
	14	1	5	1678	104	2055	120	0.05	0.00	0.13	0.02	0.00	0.02
	15	1	5	1573	103	1915	120	0.05	0.00	0.15	0.02	0.00	0.02
	16	1	11	733	207	1915	120	0.11	0.01	0.13	0.09	0.00	0.09
	17	1	89	1	825	2055	53	45.15	28.61	572.11	146.92	10.50	157.43
	18	1	16	475	111	1575	53	20.00	2.17	43.46	8.76	0.80	9.56
	19	1	2	4103	44	2055	120	0.02	0.00	0.01	0.00	0.00	0.00
	20	1	46	98	936	2055	120	0.73	0.19	6.34	2.70	0.00	2.70
	21	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	22	1	75	20	693	2055	53	33.12	20.16	403.21	90.52	7.44	97.96
	23	1	14	546	109	1739	53	19.75	2.13	42.61	8.49	0.79	9.28
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	26	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	39	131	802	2055	120	0.56	0.12	4.16	1.77	0.00	1.77
	28	1	1	7013	26	2055	120	0.01	0.00	0.00	0.00	0.00	0.00
	29	1	46	96	828	1800	120	0.85	0.20	4.03	2.78	0.00	2.78
	30	1	54	65	980	1800	120	1.19	0.32	9.21	4.61	0.00	4.61

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	(ALL)	(ALL)	0	0	11000	13	0.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	84.3	85.9	125.6	0.0	0.0	0.0	0.0
	2	85.2	0.0	50.0	61.9	0.0	0.0	0.0	0.0
	3	143.1	129.7	0.0	142.8	0.0	0.0	0.0	0.0
	4	48.7	73.3	89.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
23	1	4	102		125.55		198.54	0.00	0.00	0.00	102	125.55	198.54
24	1	2	21		84.28		196.38	0.00	0.00	0.00	21	84.28	196.38
25	1	3	19		85.93		210.17	0.00	0.00	0.00	19	85.93	210.17
26	3	2	104		129.75		207.38	0.00	0.00	0.00	104	129.75	207.38
27	3	4	56		142.78		209.54	0.00	0.00	0.00	56	142.78	209.54
28	3	1	47		143.08		212.05	0.00	0.00	0.00	47	143.08	212.05
32	2	4	693		61.94		228.47	0.00	0.00	0.00	693	61.94	228.47
33	2	3	109		49.97		240.11	0.00	0.00	0.00	109	49.97	240.11
34	2	1	26		85.17		230.99	0.00	0.00	0.00	26	85.17	230.99
35	4	3	44		89.55		232.45	0.00	0.00	0.00	44	89.55	232.45
36	4	2	825		73.31		218.66	0.00	0.00	0.00	825	73.31	218.66
37	4	1	111		48.72		223.33	0.00	0.00	0.00	111	48.72	223.33

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	D	102 <	1930	7	79	14	104.45	101.45	132.32	4.65 +	100
1x	1					184	Unrestricted	120	0	Unrestricted	18.37	0.00	0.00	0.00	100
2	1		1	1	B	26	1929	7	20	345	60.31	56.59	96.10	0.84	100
2x	1					950	Unrestricted	120	0	Unrestricted	17.81	0.00	0.00	0.00	100
3	1		1	1	D	104 <	1936	7	81	12	107.06	104.42	134.37	4.83 +	100
3x	1					172	Unrestricted	120	0	Unrestricted	19.46	0.00	0.00	0.00	100
4	1		1	1	B	44	1959	7	34	167	64.17	60.45	99.71	1.48	100
4x	1					851	Unrestricted	120	0	Unrestricted	18.06	0.00	0.00	0.00	100
9	1		1	1	C	40	1845	7	33	177	63.46	60.46	99.75	1.34	100
10	1		1			102	2055	120	5	1713	1.05	0.05	0.00	0.00	100
11	1		1			40	1915	120	2	4209	1.02	0.02	0.00	0.00	100
12	1		1			142	1915	120	7	1114	2.00	0.08	0.00	0.00	100
13	1		1	1	C	103 <	1835	7	84	7	119.83	117.19	142.75	5.14 +	100
14	1		1			104	2055	120	5	1678	1.05	0.05	0.00	0.00	100
15	1		1			103	1915	120	5	1573	1.05	0.05	0.00	0.00	100
16	1		1			207	1915	120	11	733	3.83	0.11	0.00	0.01	100
17	1		1	1	A	825 <	2055	53	89	1	48.87	45.15	101.52	28.61 +	100
18	1		1	1	A	111	1575	53	16	475	23.72	20.00	57.76	2.17	100
19	1		1			44	2055	120	2	4103	2.30	0.02	0.00	0.00	100
20	1		1			936	2055	120	46	98	3.01	0.73	0.00	0.19	100
21	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
22	1		1	1	A	693 <	2055	53	75	20	36.84	33.12	85.65	20.16 +	100
23	1		1	1	A	109	1739	53	14	546	23.47	19.75	57.63	2.13	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
26	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1		1			802	2055	120	39	131	2.84	0.56	0.00	0.12	100
28	1		1			26	2055	120	1	7013	2.29	0.01	0.00	0.00	100
29	1		1			828	1800	120	46	96	4.20	0.85	0.00	0.20	100
30	1		1			980	1800	120	54	65	3.83	1.19	0.00	0.32	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	E	0	11000	13	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	477.56	45.79	10.43	29.85	423.85	26.19	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	477.56	45.79	10.43	29.85	423.85	26.19	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Filename: Junction 4 DS 2043.t16
Path: G:\2023\p230156\calcs\transyt
Report generation date: 04/02/2025 12:11:42

Summary of network performance

	AM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	2043 DS AM - 2043				
Network	A1 D1	11528.96	804.09	197% (TS 22/1)	5 (13%)

	PM				
	Set ID	PI (€ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	2043 DS PM - 2043				
Network	A2 D2	8914.63	620.13	167% (TS 4/1)	7 (18%)

File summary

File description

File title	(untitled)
Location	
Site number	
Driving side	Left
Date	21/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HEADOFFICE\GarveyD
Description	

Model and Results

Display journey time results	Display OD matrix distances	Display excess queue results	Display separate uniform and random results	Display TRANSYT 12 style timings	Display effective greens in results

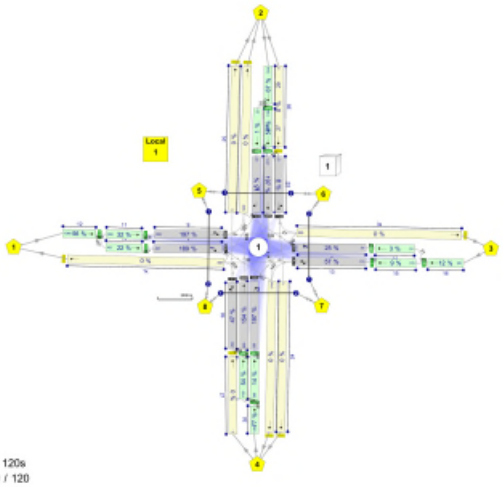
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Traffic units input	Traffic units results
€	kph	m	mpg	l/h	PCU	PCU

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
Cycletime 0s / 120s
Timesteps 119 / 120
1, 1
Diagram produced using TRANSYT 16.1.6.2289

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 21	No traffic node specified for arm(s): 21, 26
Info	Traffic Stream Flows	Arm 21 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 21/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 26 - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream 26/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	11528.96	804.09	196.99	22/1	5	13	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
2043 DS AM			✓	D1		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2043	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	74	74	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
1		NONE		1
1x		NONE		
2		NONE		1
2x		NONE		
3		NONE		1
3x		NONE		
4		NONE		1
4x		NONE		
9		NONE		1
10		NONE		1
11		NONE		1
12		NONE		1
13		NONE		1
14		NONE		1
15		NONE		1
16		NONE		1
17		NONE		1
18		NONE		1
19		NONE		1
20		NONE		1
21		NONE		
22		NONE		1
23		NONE		1
24		NONE		
25		NONE		
26		NONE		
27		NONE		1
28		NONE		1
29		NONE		1
30		NONE		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1				25.00	✓	Sum of lanes	1930	✓		Normal	
1x	1			✓	153.05						Normal	
2	1				31.00	✓	Sum of lanes	1929	✓		Normal	
2x	1			✓	148.38						Normal	
3	1				22.00	✓	Sum of lanes	1936	✓		Normal	
3x	1			✓	162.17						Normal	
4	1				31.00	✓	Sum of lanes	1959	✓		Normal	
4x	1			✓	150.54						Normal	
9	1				25.00	✓	Sum of lanes	1855	✓		Normal	
10	1				7.00	✓	Sum of lanes	2055			Normal	
11	1				7.00	✓	Sum of lanes	1915			Normal	
12	1				16.00	✓	Sum of lanes	1915			Normal	
13	1				22.00	✓	Sum of lanes	1787	✓		Normal	
14	1				6.00	✓	Sum of lanes	2055			Normal	
15	1				6.00	✓	Sum of lanes	1915			Normal	
16	1				31.00	✓	Sum of lanes	1915			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1575	✓		Normal	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2055			Normal	
21	1			✓	56.58						Bus	
22	1				31.00	✓	Sum of lanes	2055	✓		Normal	
23	1				31.00	✓	Sum of lanes	1739	✓		Normal	
24	1			✓	160.18						Bus	
25	1			✓	158.57						Bus	
26	1			✓	59.34						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	27.94	✓	Sum of lanes	1800			Normal	
30	1			✓	20.28	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	23.20		1930
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	22.93		1929
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	24.41		1936
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.61		1959
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	46	15.97	✓	1855
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	82	14.88	✓	1787
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.57	✓	1575
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
21	1	1	(untitled)											
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.31	✓	1739
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		5.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		3.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		3.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
21	1	NetworkDefault	100	100	100		0.00	
22	1	NetworkDefault	100	100	100		5.00	
23	1	NetworkDefault	100	100	100		5.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
26	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	457	457	
1x	1	260	260	
2	1	22	22	
2x	1	1239	1239	
3	1	61	61	
3x	1	656	656	
4	1	289	289	
4x	1	1744	1744	
9	1	609	609	
10	1	457	457	
11	1	609	609	
12	1	1066	1066	
13	1	170	170	
14	1	61	61	
15	1	170	170	
16	1	231	231	
17	1	895	895	
18	1	208	208	
19	1	289	289	
20	1	1103	1103	
21	1	0		0
22	1	1147	1147	
23	1	41	41	
24	1	0		0
25	1	0		0
26	1	0		0
27	1	1188	1188	
28	1	22	22	
29	1	1210	1210	
30	1	1392	1392	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	D		0	0
2	1	1	B		0	0
3	1	1	D		0	0
4	1	1	B		0	0
9	1	1	C		0	0
13	1	1	C		0	0
17	1	1	A		0	0
18	1	1	A		0	0
22	1	1	A		0	0
23	1	1	A		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)
12	1	1.92	30.00	
16	1	3.72	30.00	
21	1			15.00
26	1			15.00
29	1	3.35	30.00	
30	1	2.43	30.00	

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.00	30.00		✓	Straight	Straight Movement
1x	1	1	2/1	1x/1	18.37	30.00		✓	Offside	22.93
2	1	1	28/1	2/1	3.72	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	17.81	30.00		✓	Offside	24.41
3	1	1	14/1	3/1	2.64	30.00		✓	Straight	Straight Movement
3x	1	1	4/1	3x/1	19.46	30.00		✓	Offside	30.61
4	1	1	19/1	4/1	3.72	30.00		✓	Straight	Straight Movement
4x	1	1	1/1	4x/1	18.06	30.00		✓	Offside	23.20
9	1	1	11/1	9/1	3.00	30.00		✓	Straight	Straight Movement
10	1	1	12/1	10/1	1.00	30.00		✓	Straight	Straight Movement
11	1	1	12/1	11/1	1.00	30.00		✓	Straight	Straight Movement
13	1	1	15/1	13/1	2.64	30.00		✓	Straight	Straight Movement
14	1	1	16/1	14/1	1.00	30.00		✓	Straight	Straight Movement
15	1	1	16/1	15/1	1.00	30.00		✓	Straight	Straight Movement
17	1	1	20/1	17/1	3.72	30.00		✓	Straight	Straight Movement
18	1	1	21/1	18/1	3.72	30.00		✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Straight	Straight Movement
20	1	1	30/1	20/1	2.28	30.00		✓	Straight	Straight Movement
22	1	1	27/1	22/1	3.72	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	3.72	30.00		✓	Straight	Straight Movement
24	1	1	23/1	24/1			15.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			15.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00		✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
1x	1	2	13/1	1x/1	18.37	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	17.81	30.00		✓	Nearside	15.97
3x	1	2	9/1	3x/1	19.46	30.00		✓	Straight	Straight Movement
4x	1	2	13/1	4x/1	18.06	30.00		✓	Nearside	14.88
18	1	2	20/1	18/1	3.72	30.00		✓	Straight	Straight Movement
23	1	2	26/1	23/1	3.72	30.00		✓	Straight	Straight Movement
1x	1	3	18/1	1x/1	18.37	30.00		✓	Nearside	6.57
2x	1	3	17/1	2x/1	17.81	30.00		✓	Straight	Straight Movement
3x	1	3	23/1	3x/1	19.46	30.00		✓	Nearside	13.31
4x	1	3	22/1	4x/1	18.06	30.00		✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

From \ To	1	2	3	4	5	6	7	8
1	0	283	326	457	0	0	0	0
2	22	0	41	1147	0	0	0	0
3	30	61	0	140	0	0	0	0
4	208	895	289	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1	#0000FF
	2	(untitled)	29/1, 26/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1	#FF0000
	4	(untitled)	30/1, 21/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	23		1	4	12/1, 10/1, 1/1, 4x/1	Normal	457
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	283
	25		1	3	12/1, 11/1, 9/1, 3x/1	Normal	326
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	61
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	140
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	30
	32		2	4	29/1, 27/1, 22/1, 4x/1	Normal	1147
	33		2	3	29/1, 27/1, 23/1, 3x/1	Normal	41
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	22
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	289
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	895
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	208

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		1	74

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	0	0	Traffic	
	B	(untitled)	7	0	0	Traffic	
	C	(untitled)	7	0	0	Traffic	
	D	(untitled)	7	0	0	Traffic	
	E		13	0	0	Pedestrian	0
	F		13	0	0	Cycle	

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E, F	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	74	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F
A		6	6	6	7	7
B	6		6	6	7	7
C	6	6		6	7	7
D	6	6	6		7	7
E	8	8	8	8		
F	8	8	8	8		

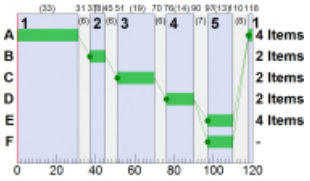
Banned Stage transitions for Controller Stream 1

From \ To	1	2	3	4	5
1					
2					
3					
4					
5					

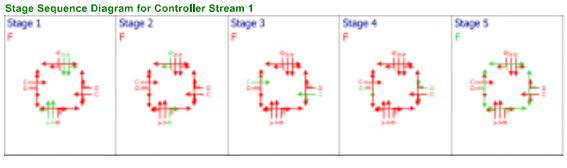
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	1	1	D	76	90	14
2	1	1	1	B	37	45	8
3	1	1	1	D	76	90	14
4	1	1	1	B	37	45	8
9	1	1	1	C	51	70	19
13	1	1	1	C	51	70	19
17	1	1	1	A	118	31	33
18	1	1	1	A	118	31	33
22	1	1	1	A	118	31	33
23	1	1	1	A	118	31	33

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:00-09:00	1	1	189	-52	457	1930	14	881.84	116.40	2910.02	1589.61	14.16	1603.77
	1x	1	0	Unrestricted	260	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	15	492	22	1929	8	54.23	0.70	13.96	4.71	0.26	4.97
	2x	1	0	Unrestricted	787	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	25	257	61	1936	14	49.96	1.87	62.41	12.02	0.70	12.72
	3x	1	0	Unrestricted	353	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	197	-54	289	1959	8	919.42	76.40	1528.01	1048.09	8.91	1057.00
	4x	1	0	Unrestricted	964	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	197	-54	609	1855	19	914.61	160.65	4016.17	2197.04	18.77	2215.81
	10	1	22	305	457	2055	120	0.25	0.03	3.18	0.45	0.00	0.45
	11	1	32	183	609	1915	120	0.44	0.07	7.41	1.05	0.00	1.05
	12	1	56	62	1066	1915	120	1.18	0.35	17.44	4.95	0.00	4.95
	13	1	57	58	170	1787	19	53.98	5.57	185.82	36.19	2.07	38.26
	14	1	3	2932	61	2055	120	0.03	0.00	0.05	0.01	0.00	0.01
	15	1	9	914	170	1915	120	0.09	0.00	0.43	0.06	0.00	0.06
	16	1	12	646	231	1915	120	0.13	0.01	0.17	0.12	0.00	0.12
	17	1	154	-41	895	2055	33	660.67	176.54	3530.82	2332.34	28.14	2360.48
	18	1	47	93	208	1575	33	39.01	5.92	118.45	32.01	2.19	34.19
	19	1	14	540	289	2055	120	0.14	0.01	0.38	0.16	0.00	0.16
	20	1	54	68	1103	2055	120	1.01	0.31	10.35	4.41	0.00	4.41
	21	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	22	1	197	-54	1147	2055	33	909.71	302.13	6042.69	4115.76	35.35	4151.11
	23	1	8	982	41	1739	33	31.90	1.01	20.12	5.16	0.37	5.53
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	26	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	58	56	1188	2055	120	1.20	0.40	13.17	5.61	0.00	5.61
	28	1	1	8307	22	2055	120	0.01	0.00	0.00	0.00	0.00	0.00
	29	1	67	34	1210	1800	120	2.04	0.69	14.12	9.74	0.00	9.74
	30	1	77	16	1392	1800	120	3.38	1.31	37.03	18.54	0.00	18.54

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
08:00-09:00	(ALL)	(ALL)	0	0	11000	13	0.00	0.00	0.00	0.00

Network Results

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
08:00	120	11528.96	804.09	196.99	22/1	5	13	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:00-09:00	197	-54	14061	2614	11418.04	110.92	11528.96

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
08:00-09:00	0	0	104	0.00	0.00	0.00

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

From \ To	1	2	3	4	5	6	7	8
1	0.0	939.9	941.6	907.3	0.0	0.0	0.0	0.0
2	84.0	0.0	64.0	940.4	0.0	0.0	0.0	0.0
3	79.9	75.3	0.0	79.6	0.0	0.0	0.0	0.0
4	70.2	691.3	950.8	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
23	1	4	457		907.25		198.54	0.00	0.00	0.00	457	907.25	198.54
24	1	2	283		939.95		196.38	0.00	0.00	0.00	283	939.95	196.38
25	1	3	326		941.60		210.17	0.00	0.00	0.00	326	941.60	210.17
26	3	2	61		75.28		207.38	0.00	0.00	0.00	61	75.28	207.38
27	3	4	140		79.62		209.54	0.00	0.00	0.00	140	79.62	209.54
28	3	1	30		79.92		212.05	0.00	0.00	0.00	30	79.92	212.05
32	2	4	1147		940.36		228.47	0.00	0.00	0.00	1147	940.36	228.47
33	2	3	41		63.96		240.11	0.00	0.00	0.00	41	63.96	240.11
34	2	1	22		84.00		230.99	0.00	0.00	0.00	22	84.00	230.99
35	4	3	289		950.83		232.45	0.00	0.00	0.00	289	950.83	232.45
36	4	2	895		691.30		218.66	0.00	0.00	0.00	895	691.30	218.66
37	4	1	208		70.20		223.33	0.00	0.00	0.00	208	70.20	223.33

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream		Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1		D	457 <	1930	14	189	-52	884.84	881.84	468.07	116.40 +	100
1x	1						260	Unrestricted	120	0	Unrestricted	18.37	0.00	0.00	0.00	100
2	1		1	1		B	22	1929	8	15	492	57.95	54.23	94.19	0.70	100
2x	1						787	Unrestricted	120	0	Unrestricted	17.81	0.00	0.00	0.00	100
3	1		1	1		D	61	1936	14	25	257	52.60	49.96	91.09	1.87	100
3x	1						353	Unrestricted	120	0	Unrestricted	19.46	0.00	0.00	0.00	100
4	1		1	1		B	289 <	1959	8	197	-54	923.14	919.42	483.80	76.40 +	100
4x	1						964	Unrestricted	120	0	Unrestricted	18.06	0.00	0.00	0.00	100
9	1		1	1		C	609 <	1855	19	197	-54	917.61	914.61	484.27	160.65 +	100
10	1		1				457	2055	120	22	305	1.25	0.25	0.00	0.03	100
11	1		1				609	1915	120	32	183	1.44	0.44	0.00	0.07	100
12	1		1				1066	1915	120	56	62	3.10	1.18	0.00	0.35	100
13	1		1	1		C	170 <	1787	19	57	58	56.62	53.98	97.11	5.57 +	100
14	1		1				61	2055	120	3	2932	1.03	0.03	0.00	0.00	100
15	1		1				170	1915	120	9	914	1.09	0.09	0.00	0.00	100
16	1		1				231	1915	120	12	646	3.85	0.13	0.00	0.01	100
17	1		1	1		A	895 <	2055	33	154	-41	664.39	660.67	385.41	176.54 +	100
18	1		1	1		A	208 <	1575	33	47	93	42.73	39.01	83.82	5.92 +	100
19	1		1				289	2055	120	14	540	2.42	0.14	0.00	0.01	100
20	1		1				1103	2055	120	54	68	3.29	1.01	0.00	0.31	100
21	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
22	1		1	1		A	1147 <	2055	33	197	-54	913.43	909.71	484.24	302.13 +	100
23	1		1	1		A	41	1739	33	8	982	35.62	31.90	72.48	1.01	100
24	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
26	1 B						0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1		1				1188	2055	120	58	56	3.48	1.20	0.00	0.40	100
28	1		1				22	2055	120	1	8307	2.29	0.01	0.00	0.00	100
29	1		1				1210	1800	120	67	34	5.39	2.04	0.00	0.69	100
30	1		1				1392	1800	120	77	16	5.81	3.38	0.00	1.31	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED			QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	P
(ALL)	(ALL)	(untitled)		1	E	0	11000	13	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	615.84	824.68	0.75	804.09	11418.04	110.92	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	615.84	824.68	0.75	804.09	11418.04	110.92	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 21	No traffic node specified for arm(s): 21, 26
Info	Traffic Stream Flows	Arm 21 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 21/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 24 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 24/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 25 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 25/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm 26 - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream 26/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	8914.63	620.13	167.06	4/1	7	18	

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
2043 DS PM			✓	D2		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
2043	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Time segment length (min)
120	74	74	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level
✓	✓	Offsets And Green Splits

Economics

Vehicle Monetary Value Of Delay (€ per PCU-hr)	Vehicle Monetary Value Of Stops (€ per 100 stops)	Pedestrian monetary value of delay (€ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
1		NONE		1
1x		NONE		
2		NONE		1
2x		NONE		
3		NONE		1
3x		NONE		
4		NONE		1
4x		NONE		
9		NONE		1
10		NONE		1
11		NONE		1
12		NONE		1
13		NONE		1
14		NONE		1
15		NONE		1
16		NONE		1
17		NONE		1
18		NONE		1
19		NONE		1
20		NONE		1
21		NONE		
22		NONE		1
23		NONE		1
24		NONE		
25		NONE		
26		NONE		
27		NONE		1
28		NONE		1
29		NONE		1
30		NONE		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID
1	1				25.00	✓	Sum of lanes	1930	✓		Normal	
1x	1			✓	153.05						Normal	
2	1				31.00	✓	Sum of lanes	1929	✓		Normal	
2x	1			✓	148.38						Normal	
3	1				22.00	✓	Sum of lanes	1936	✓		Normal	
3x	1			✓	162.17						Normal	
4	1				31.00	✓	Sum of lanes	1959	✓		Normal	
4x	1			✓	150.54						Normal	
9	1				25.00	✓	Sum of lanes	1857	✓		Normal	
10	1				7.00	✓	Sum of lanes	2055			Normal	
11	1				7.00	✓	Sum of lanes	1915			Normal	
12	1				16.00	✓	Sum of lanes	1915			Normal	
13	1				22.00	✓	Sum of lanes	1789	✓		Normal	
14	1				6.00	✓	Sum of lanes	2055			Normal	
15	1				6.00	✓	Sum of lanes	1915			Normal	
16	1				31.00	✓	Sum of lanes	1915			Normal	
17	1				31.00	✓	Sum of lanes	2055	✓		Normal	
18	1				31.00	✓	Sum of lanes	1575	✓		Normal	
19	1				19.00	✓	Sum of lanes	2055			Normal	
20	1				19.00	✓	Sum of lanes	2055			Normal	
21	1			✓	56.58						Bus	
22	1				31.00	✓	Sum of lanes	2055	✓		Normal	
23	1				31.00	✓	Sum of lanes	1739	✓		Normal	
24	1			✓	160.18						Bus	
25	1			✓	158.57						Bus	
26	1			✓	59.34						Bus	
27	1				19.00	✓	Sum of lanes	2055			Normal	
28	1				19.00	✓	Sum of lanes	2055			Normal	
29	1			✓	27.94	✓	Sum of lanes	1800			Normal	
30	1			✓	20.28	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	23.20		1930
1x	1	1	(untitled)											
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	22.93		1929
2x	1	1	(untitled)											
3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	24.41		1936
3x	1	1	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	30.61		1959
4x	1	1	(untitled)											
9	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	45	15.97	✓	1857
10	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
11	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
12	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
13	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	81	14.88	✓	1789
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
17	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
18	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.57	✓	1575
19	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
20	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
21	1	1	(untitled)											
22	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
23	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	13.31	✓	1739
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
28	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
29	1	1	(untitled)											1800
30	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit
1	1	NetworkDefault	100	100	100		4.00	
1x	1	NetworkDefault	100	100	100		0.00	
2	1	NetworkDefault	100	100	100		5.00	
2x	1	NetworkDefault	100	100	100		0.00	
3	1	NetworkDefault	100	100	100		3.00	
3x	1	NetworkDefault	100	100	100		0.00	
4	1	NetworkDefault	100	100	100		5.00	
4x	1	NetworkDefault	100	100	100		0.00	
9	1	NetworkDefault	100	100	100		4.00	
10	1	NetworkDefault	100	100	100		1.00	
11	1	NetworkDefault	100	100	100		1.00	
12	1	NetworkDefault	100	100	100		2.00	
13	1	NetworkDefault	100	100	100		3.00	
14	1	NetworkDefault	100	100	100		1.00	
15	1	NetworkDefault	100	100	100		1.00	
16	1	NetworkDefault	100	100	100		5.00	
17	1	NetworkDefault	100	100	100		5.00	
18	1	NetworkDefault	100	100	100		5.00	
19	1	NetworkDefault	100	100	100		3.00	
20	1	NetworkDefault	100	100	100		3.00	
21	1	NetworkDefault	100	100	100		0.00	
22	1	NetworkDefault	100	100	100		5.00	
23	1	NetworkDefault	100	100	100		5.00	
24	1	NetworkDefault	100	100	100		0.00	
25	1	NetworkDefault	100	100	100		0.00	
26	1	NetworkDefault	100	100	100		0.00	
27	1	NetworkDefault	100	100	100		3.00	
28	1	NetworkDefault	100	100	100		3.00	
29	1	NetworkDefault	100	100	100		0.00	
30	1	NetworkDefault	100	100	100		0.00	

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
1	1	161	161	
1x	1	196	196	
2	1	28	28	
2x	1	1427	1427	
3	1	137	137	
3x	1	540	540	
4	1	300	300	
4x	1	1535	1535	
9	1	406	406	
10	1	161	161	
11	1	406	406	
12	1	567	567	
13	1	230	230	
14	1	137	137	
15	1	230	230	
16	1	367	367	
17	1	1109	1109	
18	1	125	125	
19	1	300	300	
20	1	1234	1234	
21	1	0		0
22	1	1187	1187	
23	1	15	15	
24	1	0		0
25	1	0		0
26	1	0		0
27	1	1202	1202	
28	1	28	28	
29	1	1230	1230	
30	1	1534	1534	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
1	1	1	D		0	0
2	1	1	B		0	0
3	1	1	D		0	0
4	1	1	B		0	0
9	1	1	C		0	0
13	1	1	C		0	0
17	1	1	A		0	0
18	1	1	A		0	0
22	1	1	A		0	0
23	1	1	A		0	0

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)
12	1	1.92	30.00	
16	1	3.72	30.00	
21	1			15.00
26	1			15.00
29	1	3.35	30.00	
30	1	2.43	30.00	

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Bus cruise speed (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	10/1	1/1	3.00	30.00		✓	Straight	Straight Movement
1x	1	1	2/1	1x/1	18.37	30.00		✓	Offside	22.93
2	1	1	28/1	2/1	3.72	30.00		✓	Straight	Straight Movement
2x	1	1	3/1	2x/1	17.81	30.00		✓	Offside	24.41
3	1	1	14/1	3/1	2.64	30.00		✓	Straight	Straight Movement
3x	1	1	4/1	3x/1	19.46	30.00		✓	Offside	30.61
4	1	1	19/1	4/1	3.72	30.00		✓	Straight	Straight Movement
4x	1	1	1/1	4x/1	18.06	30.00		✓	Offside	23.20
9	1	1	11/1	9/1	3.00	30.00		✓	Straight	Straight Movement
10	1	1	12/1	10/1	1.00	30.00		✓	Straight	Straight Movement
11	1	1	12/1	11/1	1.00	30.00		✓	Straight	Straight Movement
13	1	1	15/1	13/1	2.64	30.00		✓	Straight	Straight Movement
14	1	1	16/1	14/1	1.00	30.00		✓	Straight	Straight Movement
15	1	1	16/1	15/1	1.00	30.00		✓	Straight	Straight Movement
17	1	1	20/1	17/1	3.72	30.00		✓	Straight	Straight Movement
18	1	1	21/1	18/1	3.72	30.00		✓	Straight	Straight Movement
19	1	1	30/1	19/1	2.28	30.00		✓	Straight	Straight Movement
20	1	1	30/1	20/1	2.28	30.00		✓	Straight	Straight Movement
22	1	1	27/1	22/1	3.72	30.00		✓	Straight	Straight Movement
23	1	1	27/1	23/1	3.72	30.00		✓	Straight	Straight Movement
24	1	1	23/1	24/1			15.00	✓	Straight	Straight Movement
25	1	1	18/1	25/1			15.00	✓	Straight	Straight Movement
27	1	1	29/1	27/1	2.28	30.00		✓	Straight	Straight Movement
28	1	1	29/1	28/1	2.28	30.00		✓	Straight	Straight Movement
1x	1	2	13/1	1x/1	18.37	30.00		✓	Straight	Straight Movement
2x	1	2	9/1	2x/1	17.81	30.00		✓	Nearside	15.97
3x	1	2	9/1	3x/1	19.46	30.00		✓	Straight	Straight Movement
4x	1	2	13/1	4x/1	18.06	30.00		✓	Nearside	14.88
18	1	2	20/1	18/1	3.72	30.00		✓	Straight	Straight Movement
23	1	2	26/1	23/1	3.72	30.00		✓	Straight	Straight Movement
1x	1	3	18/1	1x/1	18.37	30.00		✓	Nearside	6.57
2x	1	3	17/1	2x/1	17.81	30.00		✓	Straight	Straight Movement
3x	1	3	23/1	3x/1	19.46	30.00		✓	Nearside	13.31
4x	1	3	22/1	4x/1	18.06	30.00		✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	9.60	6.40	5.40
2	(untitled)			Signalised		Farside	18.60	12.40	5.40
3	(untitled)			Signalised		Farside	9.50	6.33	5.40
4	(untitled)			Signalised		Farside	18.60	12.40	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit
(ALL)	(ALL)	100	100		0.00	

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

From \ To	1	2	3	4	5	6	7	8
1	0	161	225	161	0	0	0	0
2	28	0	15	1187	0	0	0	0
3	43	137	0	187	0	0	0	0
4	125	1109	300	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Cycle Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	12/1	1x/1	#0000FF
	2	(untitled)	29/1, 26/1	2x/1, 25/1	#FF0000
	3	(untitled)	16/1	3x/1	#FF0000
	4	(untitled)	30/1, 21/1	4x/1, 24/1	#FF0000
	5	(untitled)	1:1E, 4:1E	1:1X, 4:1X	#00FFFF
	6	(untitled)	4:2E, 3:2E	4:2X, 3:2X	#FF00FF
	7	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	23		1	4	12/1, 10/1, 1/1, 4x/1	Normal	161
	24		1	2	12/1, 11/1, 9/1, 2x/1	Normal	181
	25		1	3	12/1, 11/1, 9/1, 3x/1	Normal	225
	26		3	2	16/1, 14/1, 3/1, 2x/1	Normal	137
	27		3	4	16/1, 15/1, 13/1, 4x/1	Normal	187
	28		3	1	16/1, 15/1, 13/1, 1x/1	Normal	43
	32		2	4	29/1, 27/1, 22/1, 4x/1	Normal	1187
	33		2	3	29/1, 27/1, 23/1, 3x/1	Normal	15
	34		2	1	29/1, 28/1, 2/1, 1x/1	Normal	28
	35		4	3	30/1, 19/1, 4/1, 3x/1	Normal	300
	36		4	2	30/1, 20/1, 17/1, 2x/1	Normal	1109
	37		4	1	30/1, 20/1, 18/1, 1x/1	Normal	125

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	4:1E, 4:2X	Normal	0
	14		6	5	4:2E, 4:1X	Normal	0
	15		6	7	3:2E, 3:1X	Normal	0
	16		7	6	3:1E, 3:2X	Normal	0
	17		7	8	2:2E, 2:1X	Normal	0
	18		8	7	2:1E, 2:2X	Normal	0
	19		5	8	1:1E, 1:2X	Normal	0
	20		8	5	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Minimum possible cycle time (s)
1	(untitled)		1	74

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Enable stage constraint
1	✓	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	0	0	Traffic	
	B	(untitled)	7	0	0	Traffic	
	C	(untitled)	7	0	0	Traffic	
	D	(untitled)	7	0	0	Traffic	
	E		13	0	0	Pedestrian	0
	F		13	0	0	Cycle	

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E, F	1

Stage Sequences

Controller Stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	74	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F
A		6	6	6	7	7
B	6		6	6	7	7
C	6	6		6	7	7
D	6	6	6		7	7
E	8	8	8	8		
F	8	8	8	8		

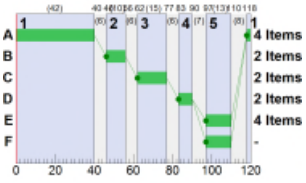
Banned Stage transitions for Controller Stream 1

From \ To	1	2	3	4	5
1					
2					
3					
4					
5					

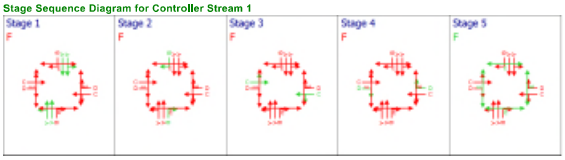
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	1	1	D	83	90	7
2	1	1	1	B	46	56	10
3	1	1	1	D	83	90	7
4	1	1	1	B	46	56	10
9	1	1	1	C	62	77	15
13	1	1	1	C	62	77	15
17	1	1	1	A	118	40	42
18	1	1	1	A	118	40	42
22	1	1	1	A	118	40	42
23	1	1	1	A	118	40	42

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (€ per hr)	Intergreen broken penalty (€ per hr)	Stage constraint broken penalty (€ per hr)	Cost of controller stream penalties (€ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	125	-28	161	1930	7	444.38	22.13	553.14	282.21	4.89	287.09
	1x	1	0	Unrestricted	196	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	2	1	16	468	28	1929	10	52.21	0.87	17.41	5.77	0.32	6.09
	2x	1	0	Unrestricted	976	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	3	1	106	-15	137	1936	7	254.87	11.96	398.60	137.73	3.57	141.30
	3x	1	0	Unrestricted	332	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	4	1	167	-46	300	1959	10	763.87	66.87	1337.47	903.91	9.42	913.33
	4x	1	0	Unrestricted	1052	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	164	-45	406	1857	15	740.76	88.15	2203.73	1186.28	12.76	1199.04
	10	1	8	1049	161	2055	120	0.07	0.00	0.33	0.05	0.00	0.05
	11	1	21	325	406	1915	120	0.25	0.03	2.85	0.40	0.00	0.40
	12	1	30	204	567	1915	120	0.40	0.06	3.11	0.88	0.00	0.88
	13	1	96	-7	230	1789	15	134.43	12.89	429.56	121.96	4.51	126.46
	14	1	7	1250	137	2055	120	0.06	0.00	0.24	0.03	0.00	0.03
	15	1	12	649	230	1915	120	0.13	0.01	0.82	0.12	0.00	0.12
	16	1	19	370	367	1915	120	0.22	0.02	0.45	0.32	0.00	0.32
	17	1	151	-40	1109	2055	42	633.54	211.63	4232.63	2771.35	34.84	2806.18
	18	1	22	306	125	1575	42	27.75	2.91	58.27	13.68	1.08	14.76
	19	1	15	517	300	2055	120	0.15	0.01	0.42	0.18	0.00	0.18
	20	1	60	50	1234	2055	120	1.31	0.45	15.00	6.39	0.00	6.39
	21	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	22	1	161	-44	1187	2055	42	709.68	250.46	5009.29	3322.77	37.29	3360.06
	23	1	2	3639	15	1739	42	25.10	0.32	6.42	1.48	0.12	1.60
	24	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	25	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	26	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	27	1	58	54	1202	2055	120	1.23	0.41	13.71	5.84	0.00	5.84
	28	1	1	6505	28	2055	120	0.01	0.00	0.00	0.00	0.00	0.00
	29	1	68	32	1230	1800	120	2.15	0.73	15.10	10.42	0.00	10.42
	30	1	85	6	1534	1800	120	5.63	2.40	68.02	34.06	0.00	34.06

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	(ALL)	(ALL)	0	0	11000	13	0.00	0.00	0.00	0.00

Network Results

Run Summary

Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (€ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Network within capacity
17:00	120	8914.63	620.13	167.06	4/1	7	18	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	167	-46	13650	2632	8805.84	108.79	8914.63

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (€ per hr)	Performance Index (€ per hr)
17:00-18:00	0	0	104	0.00	0.00	0.00

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	765.1	766.8	468.8	0.0	0.0	0.0	0.0
	2	82.1	0.0	57.3	740.5	0.0	0.0	0.0	0.0
	3	160.5	280.3	0.0	160.2	0.0	0.0	0.0	0.0
	4	61.5	666.7	797.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus Journey Dist (m)	Cycle Journey Dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
13	5	6		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
14	6	5		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
15	6	7		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
16	7	6		0		0.00	10.50	10.50	10.50	10.50	0	0.00	42.00
17	7	8		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
18	8	7		0		0.00	19.60	19.60	19.60	19.60	0	0.00	78.40
19	5	8		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
20	8	5		0		0.00	10.60	10.60	10.60	10.60	0	0.00	42.40
23	1	4	181		468.84		198.54	0.00	0.00	0.00	181	468.84	198.54
24	1	2	181		765.13		196.38	0.00	0.00	0.00	181	765.13	196.38
25	1	3	225		766.79		210.17	0.00	0.00	0.00	225	766.79	210.17
26	3	2	137		280.32		207.38	0.00	0.00	0.00	137	280.32	207.38
27	3	4	187		160.20		209.54	0.00	0.00	0.00	187	160.20	209.54
28	3	1	43		160.50		212.05	0.00	0.00	0.00	43	160.50	212.05
32	2	4	1187		740.48		228.47	0.00	0.00	0.00	1187	740.48	228.47
33	2	3	15		57.29		240.11	0.00	0.00	0.00	15	57.29	240.11
34	2	1	28		82.09		230.99	0.00	0.00	0.00	28	82.09	230.99
35	4	3	300		797.54		232.45	0.00	0.00	0.00	300	797.54	232.45
36	4	2	1109		666.72		218.66	0.00	0.00	0.00	1109	666.72	218.66
37	4	1	125		61.49		223.33	0.00	0.00	0.00	125	61.49	223.33

Final Prediction Table

Traffic Stream Results

			SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIG
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)
1	1		1	1	D	161 <	1930	7	125	-28	447.38	444.38	302.92	22.13 +	100
1x	1					196	Unrestricted	120	0	Unrestricted	18.37	0.00	0.00	0.00	100
2	1		1	1	B	28	1929	10	16	468	55.93	52.21	92.27	0.87	100
2x	1					976	Unrestricted	120	0	Unrestricted	17.81	0.00	0.00	0.00	100
3	1		1	1	D	137 <	1936	7	105	-15	257.51	254.87	220.82	11.96 +	100
3x	1					332	Unrestricted	120	0	Unrestricted	19.46	0.00	0.00	0.00	100
4	1		1	1	B	300 <	1959	10	167	-46	767.59	763.87	418.25	66.87 +	100
4x	1					1052	Unrestricted	120	0	Unrestricted	18.06	0.00	0.00	0.00	100
9	1		1	1	C	406 <	1857	15	164	-45	743.76	740.76	410.86	88.15 +	100
10	1		1			161	2055	120	8	1049	1.07	0.07	0.00	0.00	100
11	1		1			406	1915	120	21	325	1.25	0.25	0.00	0.03	100
12	1		1			567	1915	120	30	204	2.32	0.40	0.00	0.06	100
13	1		1	1	C	230 <	1789	15	96	-7	137.07	134.43	156.27	12.89 +	100
14	1		1			137	2055	120	7	1250	1.06	0.06	0.00	0.00	100
15	1		1			230	1915	120	12	649	1.13	0.13	0.00	0.01	100
16	1		1			367	1915	120	19	370	3.94	0.22	0.00	0.02	100
17	1		1	1	A	1109 <	2055	42	151	-40	637.26	633.54	377.29	211.63 +	100
18	1		1	1	A	125	1575	42	22	306	31.47	27.75	68.92	2.91	100
19	1		1			300	2055	120	15	517	2.43	0.15	0.00	0.01	100
20	1		1			1234	2055	120	60	50	3.59	1.31	0.00	0.45	100
21	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
22	1		1	1	A	1187 <	2055	42	161	-44	713.40	709.68	403.88	250.46 +	100
23	1		1	1	A	15	1739	42	2	3639	28.82	25.10	63.24	0.32	100
24	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
25	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
26	1 B					0	Unrestricted	120	0	Unrestricted	0.00	0.00	0.00	0.00	100
27	1		1			1202	2055	120	58	54	3.51	1.23	0.00	0.41	100
28	1		1			28	2055	120	1	6505	2.29	0.01	0.00	0.00	100
29	1		1			1230	1800	120	68	32	5.50	2.15	0.00	0.73	100
30	1		1			1534	1800	120	85	6	8.08	5.63	0.00	2.40	100

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	
(ALL)	(ALL)	(untitled)		1	E	0	11000	13	0	Unrestricted	0.00	0.00	0.00	100	0.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-hr/hr)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Excess queue penalty (€ per hr)
Normal traffic	639.51	641.50	1.00	620.13	8805.84	108.79	0.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cycle							
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	639.51	641.50	1.00	620.13	8805.84	108.79	0.00

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = stop or delay weighting has been set to a value other than 100%*
- *^ = stop or delay path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Version: 16.1.6.2289

Filename: Junction 5 DN.t15.t16
Path: G:\2023\p230156\calcs\transyt
Report generation date: 22/01/2025 10:29:49

»A1 - DN 2028 AM : D1 - DN 2028, AM :
»A2 - DN 2028 PM : D2 - DN 2028, PM :
»A3 - DN 2043 AM : D3 - DN 2043, AM :
»A4 - DN 2043 PM : D4 - DN 2043, PM :

Summary of network performance

	AM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	DN 2028 AM - DN 2028				
Network	A1 D1	4644.71	322.40	165% (TS D1/1)	4 (15%)

	PM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	DN 2028 PM - DN 2028				
Network	A2 D2	2026.40	139.29	123% (TS B1/1)	3 (12%)

	AM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	DN 2043 AM - DN 2043				
Network	A3 D3	13684.51	955.85	252% (TS A1/2)	5 (19%)

	PM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	DN 2043 PM - DN 2043				
Network	A4 D4	14637.87	1023.00	246% (TS A1/2)	5 (19%)

File summary

File description

File title	(untitled)
Location	
Site number	
Driving side	Left
Date	22/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HEADOFFICE\GarveyD
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	c	m

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

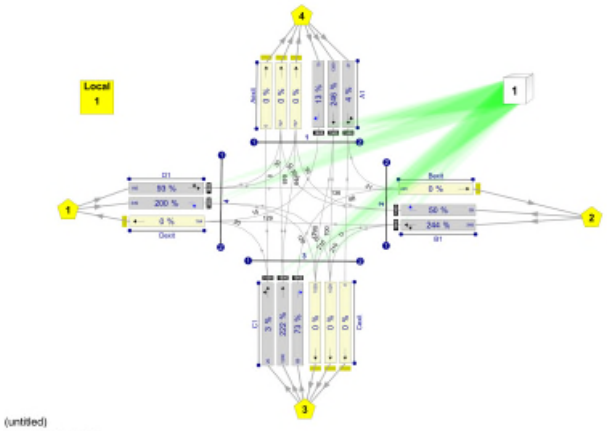
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
Cycletime 0s / 100s
Timesteps 99 / 100
4, 4
Diagram produced using TRANSYT 16.1.6.2289

A1 - DN 2028 AM
D1 - DN 2028, AM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Stream Flows	Arm Cexit - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream Cexit/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm Aexit - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream Aexit/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	22/01/2025 10:29:28	22/01/2025 10:29:28	0.99	08:00	100	4644.71	322.40	164.62	D1/1	4	15	D1/1	Bexit/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
DN 2028 AM			✓	D1		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
DN 2028	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	116	116		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Exclude blocking-back in DoS	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)		100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Cruise time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	Bus	1.00	Default	0.94	30	85

Tram parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
(ALL)		NONE		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID	Allow nearside turn on red
Aexit	1			✓	296.43						Bus		
	2			✓	284.19						Normal		
	3			✓	284.45						Normal		
Bexit	1			✓	300.05						Normal		
Cexit	1			✓	316.73						Bus		
	2			✓	303.20						Normal		
	3			✓	303.59						Normal		
Dexit	1			✓	310.73						Normal		
A1	1				109.30	✓	Sum of lanes	1800	✓		Normal		
	2				109.30	✓	Sum of lanes	1800	✓		Normal		
	3				109.30	✓	Sum of lanes	1800	✓		Normal		
B1	1				25.04	✓	Sum of lanes	1800	✓		Normal		
	2				25.04	✓	Sum of lanes	1800	✓		Normal		
C1	1				69.57	✓	Sum of lanes	1800	✓		Normal		
	2				69.57	✓	Sum of lanes	1800	✓		Normal		
	3				69.57	✓	Sum of lanes	1800	✓		Normal		
D1	1				25.25	✓	Sum of lanes	1800	✓		Normal		
	2				25.25	✓	Sum of lanes	1800	✓		Normal		

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Aexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Bexit	1	1	(untitled)			
Cexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Dexit	1	1	(untitled)			
A1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
B1	1	1	(untitled)			1800
	2	1	(untitled)			1800
C1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
D1	1	1	(untitled)			1800
	2	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Aexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
A1	1	NetworkDefault	100	100	100		18.00		
	2	NetworkDefault	100	100	100		18.00		
	3	NetworkDefault	100	100	100		18.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		11.00		
	2	NetworkDefault	100	100	100		11.00		
	3	NetworkDefault	100	100	100		11.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Bus - Advanced

Arm	Traffic Stream	Dispersion type	Use network default acceleration
(ALL)	1	NetworkDefault	✓

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
Aexit	1	0		0
	2	426	426	
	3	426	426	
Bexit	1	287	287	
Cexit	1	0		0
	2	555	555	
	3	555	555	
Dexit	1	91	91	
A1	1	25	25	
	2	876	876	
	3	20	20	
B1	1	230	230	
	2	71	71	
C1	1	22	22	
	2	659	659	
	3	63	63	
D1	1	320	320	
	2	52	52	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
A1	1	1	C		0	0
	2	1	B		0	0
	3	1	A		0	0
B1	1	1	E		0	0
	2	1	D		0	0
C1	1	1	F		0	0
	2	1	G		0	0
	3	1	H		0	0
D1	1	1	I		0	0
	2	1	J		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	24.78	16.52	5.40
2	(untitled)			Signalised		Farside	14.49	9.66	5.40
3	(untitled)			Signalised		Farside	24.82	16.54	5.40
4	(untitled)			Signalised		Farside	14.49	9.66	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	K	
2	1	L	
3	1	M	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	199	52	121
	2	49	0	181	71
	3	22	63	0	659
	4	20	25	876	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/3, Cexit/2, Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/3, Aexit/2, Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	2		1	2	D1/1, Bexit/1	Normal	199
	3		1	4	D1/1, Aexit/3	Normal	61
	4		1	4	D1/1, Aexit/2	Normal	61
	5		1	3	D1/2, Cexit/3	Normal	26
	6		1	3	D1/2, Cexit/2	Normal	26
	7		2	1	B1/1, Dexit/1	Normal	49
	8		2	3	B1/1, Cexit/2	Normal	91
	9		2	3	B1/1, Cexit/3	Normal	91
	10		2	4	B1/2, Aexit/3	Normal	36
	11		2	4	B1/2, Aexit/2	Normal	36
	16		3	1	C1/1, Dexit/1	Normal	22
	17		3	2	C1/3, Bexit/1	Normal	63
	18		3	4	C1/2, Aexit/2	Normal	330
	19		3	4	C1/2, Aexit/3	Normal	330
	21		4	3	A1/2, Cexit/2	Normal	438
	22		4	3	A1/2, Cexit/3	Normal	438
	23		4	2	A1/1, Bexit/1	Normal	25
	24		4	1	A1/3, Dexit/1	Normal	20

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	36	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	36	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	A, H	1
	2	E, I	1
	3	D, J	1
	4	M, K, L, N	1
	5	G, F, C, B	1

Losing / Gaining Phase Delays

Controller stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Losing	H	1	2	1	
	2	Losing	L	4	5	10	
	3	Losing	N	4	5	10	
	4	Losing	C	5	1	1	
	5	Losing	B	5	1	1	
	6	Gaining	A	5	1	3	9

Stage Sequences

Controller stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	14, 32, 44, 57, 118	116	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A				5	5	6	5		6	5	5			8
B				5	5			6	6		5		7	
C				5	5			6	7		5	6	7	
D	5	5	5					5	5		8	5		
E	5	5	5			7	6	6		5		5	7	8
F	6				6				5	5	7		5	6
G	6				6				5	5	8		5	
H		6	6	5	6				5	5		8	5	
I	6	6	7	5		5	5	5			7	8		5
J	5				5	5	5	5					8	5
K	25	25	25	25		25	25		25					
L			15	15	15			15	15					
M		25	25		25	25	25	25		25				
N	15				15	15			15	15				

Interstage Matrix for Controller Stream 1

From \ To	1	2	3	4	5
1	0	7	5	8	6
2	6	0	5	8	7
3	5	5	0	8	5
4	25	25	25	0	25
5	9	7	5	8	0

Resultant Stages

Controller stream	Resultant Stage	Is Base Stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A,H	7	14	7	1	7
	2	✓	2	E,I	21	32	11	1	7
	3	✓	3	D,J	37	44	7	1	7
	4	✓	4	M,K,L,N	52	57	5	1	5
	5	✓	5	G,F,C,B	82	118	36	1	36

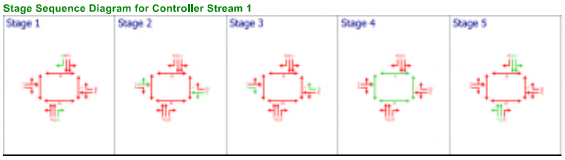
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	7	14	7
	B	1	✓	82	119	37
	C	1	✓	82	119	37
	D	1	✓	37	44	7
	E	1	✓	21	32	11
	F	1	✓	82	118	36
	G	1	✓	82	118	36
	H	1	✓	5	15	10
	I	1	✓	20	32	12
	J	1	✓	37	44	7
	K	1	✓	52	57	5
	L	1	✓	49	67	18
	M	1	✓	52	57	5
	N	1	✓	49	67	18

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1		1	C	82	119	37
A1	2		1	B	82	119	37
A1	3		1	A	7	14	7
B1	1		1	E	21	32	11
B1	2		1	D	37	44	7
C1	1		1	F	82	118	36
C1	2		1	G	82	118	36
C1	3		1	H	5	15	10
D1	1		1	I	20	32	12
D1	2		1	J	37	44	7

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	Aexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	351	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	351	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	0	Unrestricted	209	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	382	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	382	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	0	Unrestricted	80	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	4	1952	25	1800	37	28.59	0.58	3.21	2.82	0.21	3.03
		2	154	-41	876	1800	37	659.23	172.76	959.79	2277.84	27.54	2305.38
		3	17	440	20	1800	7	55.91	0.64	3.58	4.41	0.24	4.65
	B1	1	128	-30	231	1800	11	464.44	33.05	826.30	423.19	7.05	430.24
		2	60	50	72	1800	7	76.04	2.75	66.79	21.60	1.02	22.62
	C1	1	4	2170	22	1800	36	29.20	0.51	4.67	2.53	0.19	2.72
		2	119	-24	660	1800	36	334.78	73.32	666.59	871.55	18.77	890.32
		3	38	136	63	1800	10	57.98	2.08	16.88	14.41	0.77	15.18
	D1	1	165	-45	321	1800	12	747.49	70.20	1754.97	946.44	10.09	956.53
		2	43	108	52	1800	7	65.13	1.82	45.60	13.36	0.68	14.04

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	Aexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	351	351	75	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
		3	351	351	75	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	Bexit	1	209	209	78	✓	Unrestricted	Unrestricted	0		Unrestricted	0.90	120
	Cexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	382	382	173	✓	Unrestricted	Unrestricted	0		Unrestricted	0.63	120
		3	382	382	173	✓	Unrestricted	Unrestricted	0		Unrestricted	0.62	120
	Dexit	1	80	80	11	✓	Unrestricted	Unrestricted	0		Unrestricted	0.73	120
	A1	1	25	25	0		1800	570	4		1952	0.00	37
		2	876	570	0		1800	570	154	✓	-41	0.00	37
		3	20	20	0		1800	120	17		440	0.00	7
	B1	1	231	180	-1	✓	1800	180	128	✓	-30	0.00	11
		2	72	72	-1		1800	120	60		50	0.00	7
	C1	1	22	22	0		1800	555	4		2170	0.00	36
		2	660	555	-1		1800	555	119	✓	-24	0.00	36
		3	63	63	0		1800	165	38		136	0.00	10
	D1	1	321	195	-1	✓	1800	195	165	✓	-45	0.00	12
		2	52	52	0		1800	120	43		108	0.00	7

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	Aexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	34.10	0.00	0.00	0.00	0.00	0.00	0.00
		3	34.13	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	36.01	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	36.38	0.00	0.00	0.00	0.00	0.00	0.00
		3	36.43	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	37.29	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	13.12	28.59	0.20	2.82	66.30	17.08	0.21
		2	13.12	659.23	160.41	2277.84	385.34	2196.43	27.54
		3	13.12	55.91	0.31	4.41	95.66	19.13	0.24
	B1	1	3.00	464.44	29.80	423.19	312.50	562.50	7.05
		2	3.00	76.04	1.52	21.60	112.88	81.27	1.02
	C1	1	8.35	29.20	0.18	2.53	68.90	15.16	0.19
		2	8.35	334.78	61.38	871.55	269.66	1496.63	18.77
		3	8.35	57.98	1.01	14.41	97.83	61.63	0.77
	D1	1	3.03	747.49	66.65	946.44	412.49	804.36	10.09
		2	3.03	65.13	0.94	13.36	104.03	54.09	0.68

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	Aexit	1	0.00	0.00	51.55	0.00	0.00	120.00	
		2	0.00	0.00	49.42	0.00	0.00	20.00	
		3	0.00	0.00	49.47	0.00	0.00	20.00	
	Bexit	1	0.00	0.00	52.18	0.00	0.00	47.00	
	Cexit	1	0.00	0.00	55.08	0.00	0.00	120.00	
		2	0.00	0.00	52.73	0.00	0.00	19.00	
		3	0.00	0.00	52.80	0.00	0.00	19.00	
	Dexit	1	0.00	0.00	54.04	0.00	0.00	63.00	
	A1	1	0.00	0.58	18.00	3.21	0.00	36.00	
		2	0.00	172.76	18.00	959.79	0.00	0.00	
		3	0.00	0.64	18.00	3.58	0.00	6.00	
	B1	1	0.00	33.05	4.00	826.30	0.00	0.00	
		2	0.00	2.75	4.00	68.79	0.00	0.00	
	C1	1	0.00	0.51	11.00	4.67	0.00	35.00	
		2	0.00	73.32	11.00	666.59	0.00	0.00	
		3	0.00	2.08	11.00	18.88	0.00	0.00	
	D1	1	0.00	70.20	4.00	1754.97	0.00	0.00	
		2	0.00	1.82	4.00	45.60	0.00	4.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	22/01/2025 10:29:28	22/01/2025 10:29:28	0.99	08:00	100	4644.71	322.40	164.62	D1/1	4	15	D1/1	Bexit/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	165	-45	4096	1160	4578.15	66.56	4644.71

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4096	3508	580	✓	165	✓	-45	1252

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	20.16	322.40	4578.15	5308.29	66.56

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
08:00-09:00	1754.97	0.00	509.00

A2 - DN 2028 PM
D2 - DN 2028, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Stream Flows	Arm Cexit - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream Cexit/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm Aexit - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream Aexit/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
2	22/01/2025 10:29:29	22/01/2025 10:29:29	0.63	17:00	100	2026.40	139.29	123.08	B1/1	3	12	B1/1	Bexit/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
DN 2028 PM			✓	D2		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
DN 2028	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	112	112		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Exclude blocking-back in DoS	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)		100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Cruise time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	Bus	1.00	Default	0.94	30	85

Tram parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
(ALL)		NONE		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID	Allow nearside turn on red
Aexit	1			✓	296.43						Bus		
	2			✓	284.19						Normal		
	3			✓	284.45						Normal		
Bexit	1			✓	300.05						Normal		
Cexit	1			✓	316.73						Bus		
	2			✓	303.20						Normal		
	3			✓	303.59						Normal		
Dexit	1			✓	310.73						Normal		
A1	1				109.30	✓	Sum of lanes	1800	✓		Normal		
	2				109.30	✓	Sum of lanes	1800	✓		Normal		
	3				109.30	✓	Sum of lanes	1800	✓		Normal		
B1	1				25.04	✓	Sum of lanes	1800	✓		Normal		
	2				25.04	✓	Sum of lanes	1800	✓		Normal		
C1	1				69.57	✓	Sum of lanes	1800	✓		Normal		
	2				69.57	✓	Sum of lanes	1800	✓		Normal		
	3				69.57	✓	Sum of lanes	1800	✓		Normal		
D1	1				25.25	✓	Sum of lanes	1800	✓		Normal		
	2				25.25	✓	Sum of lanes	1800	✓		Normal		

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Aexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Bexit	1	1	(untitled)			
Cexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Dexit	1	1	(untitled)			
A1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
B1	1	1	(untitled)			1800
	2	1	(untitled)			1800
C1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
D1	1	1	(untitled)			1800
	2	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Aexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
A1	1	NetworkDefault	100	100	100		18.00		
	2	NetworkDefault	100	100	100		18.00		
	3	NetworkDefault	100	100	100		18.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		11.00		
	2	NetworkDefault	100	100	100		11.00		
	3	NetworkDefault	100	100	100		11.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Bus - Advanced

Arm	Traffic Stream	Dispersion type	Use network default acceleration
(ALL)	1	NetworkDefault	✓

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
Aexit	1	0		0
	2	430	430	
	3	430	430	
Bexit	1	172	172	
Cexit	1	0		0
	2	411	411	
	3	411	411	
Dexit	1	225	225	
A1	1	64	64	
	2	636	636	
	3	52	52	
B1	1	240	240	
	2	69	69	
C1	1	65	65	
	2	729	729	
	3	58	58	
D1	1	111	111	
	2	54	54	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
A1	1	1	C		0	0
	2	1	B		0	0
	3	1	A		0	0
B1	1	1	E		0	0
	2	1	D		0	0
C1	1	1	F		0	0
	2	1	G		0	0
	3	1	H		0	0
D1	1	1	I		0	0
	2	1	J		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	24.78	16.52	5.40
2	(untitled)			Signalised		Farside	14.49	9.66	5.40
3	(untitled)			Signalised		Farside	24.82	16.54	5.40
4	(untitled)			Signalised		Farside	14.49	9.66	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	K	
2	1	L	
3	1	M	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	50	54	61
	2	108	0	132	69
	3	65	58	0	729
	4	52	64	636	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/3, Cexit/2, Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/3, Aexit/2, Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	2		1	2	D1/1, Bexit/1	Normal	50
	3		1	4	D1/1, Aexit/3	Normal	31
	4		1	4	D1/1, Aexit/2	Normal	31
	5		1	3	D1/2, Cexit/3	Normal	27
	6		1	3	D1/2, Cexit/2	Normal	27
	7		2	1	B1/1, Dexit/1	Normal	108
	8		2	3	B1/1, Cexit/2	Normal	66
	9		2	3	B1/1, Cexit/3	Normal	66
	10		2	4	B1/2, Aexit/3	Normal	35
	11		2	4	B1/2, Aexit/2	Normal	35
	16		3	1	C1/1, Dexit/1	Normal	65
	17		3	2	C1/3, Bexit/1	Normal	58
	18		3	4	C1/2, Aexit/2	Normal	365
	19		3	4	C1/2, Aexit/3	Normal	365
	21		4	3	A1/2, Cexit/2	Normal	318
	22		4	3	A1/2, Cexit/3	Normal	318
	23		4	2	A1/1, Bexit/1	Normal	64
	24		4	1	A1/3, Dexit/1	Normal	52

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	36	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	36	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	B, C, F, G	1
	2	A, H	1
	3	E, I	1
	4	D, J	1
	5	K, L, M, N	1

Stage Sequences

Controller stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	60, 73, 91, 103, 116	112	

Intergreen Matrix for Controller Stream 1

		To												
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
From	A				5	5	6	5		6	5	5			8
	B				5	5			6	6		5		7	
	C				5	5			6	7		5	6	7	
	D	5	5	5					5	5		8	5		
	E	5	5	5			7	6	6		5		5	7	8
	F	6			6					5	5	7		5	6
	G	6				6				5	5	8		5	
	H		6	6	5	6				5	5		8	5	
	I	6	6	7	5		5	5	5			7	8		5
	J	5				5	5	5	5					8	5
	K	25	25	25	25		25	25		25					
	L			15	15	15			15	15					
	M		25	25		25	25	25	25		25				
	N	15				15	15			15	15				

Interstage Matrix for Controller Stream 1

From \ To	1	2	3	4	5
1	0	6	7	5	8
2	6	0	6	5	8
3	7	6	0	5	8
4	5	5	5	0	8
5	25	25	25	25	0

Resultant Stages

Controller stream	Resultant Stage	Is Base Stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C,F,G	21	60	39	1	36
	2	✓	2	A,H	66	73	7	1	7
	3	✓	3	E,I	79	91	12	1	7
	4	✓	4	D,J	96	103	7	1	7
	5	✓	5	K,L,M,N	111	116	5	1	5

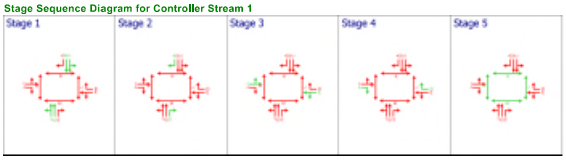
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	66	73	7
	B	1	✓	21	60	39
	C	1	✓	21	60	39
	D	1	✓	96	103	7
	E	1	✓	79	91	12
	F	1	✓	21	60	39
	G	1	✓	21	60	39
	H	1	✓	66	73	7
	I	1	✓	79	91	12
	J	1	✓	96	103	7
	K	1	✓	111	116	5
	L	1	✓	108	116	8
	M	1	✓	111	116	5
	N	1	✓	108	116	8

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
At	1		1	C	21	60	39
At	2		1	B	21	60	39
At	3		1	A	66	73	7
B1	1		1	E	79	91	12
B1	2		1	D	96	103	7
C1	1		1	F	21	60	39
C1	2		1	G	21	60	39
C1	3		1	H	66	73	7
D1	1		1	I	79	91	12
D1	2		1	J	96	103	7

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	Aexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	366	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	366	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	0	Unrestricted	172	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	381	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	381	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	0	Unrestricted	205	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	At	1	11	744	64	1800	39	28.01	1.46	8.13	7.07	0.54	7.61
		2	106	-15	636	1800	39	173.60	43.84	243.53	435.49	14.41	449.91
		3	43	108	52	1800	7	65.13	1.82	10.13	13.36	0.68	14.04
	B1	1	123	-27	240	1800	12	409.75	30.86	771.61	387.89	7.16	395.05
		2	58	54	70	1800	7	74.62	2.65	66.21	20.60	0.98	21.59
	C1	1	11	731	65	1800	39	28.03	1.49	13.52	7.19	0.55	7.74
		2	122	-26	730	1800	39	364.27	87.03	791.21	1048.90	21.23	1070.13
		3	48	86	58	1800	7	67.75	2.07	18.85	15.50	0.77	16.27
	D1	1	57	57	112	1800	12	63.05	3.93	98.14	27.85	1.45	29.31
		2	45	100	54	1800	7	65.96	1.91	47.64	14.05	0.71	14.76

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	Aexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	366	366	64	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
		3	366	366	64	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	Bexit	1	172	172	0		Unrestricted	Unrestricted	0		Unrestricted	0.75	120
	Cexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	381	381	30	✓	Unrestricted	Unrestricted	0		Unrestricted	0.64	120
		3	381	381	30	✓	Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	Dexit	1	205	205	20	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	At	1	64	64	0		1800	600	11		744	0.00	39
		2	636	600	0		1800	600	106	✓	-15	0.00	39
		3	52	52	0		1800	120	43		108	0.00	7
	B1	1	240	195	0		1800	195	123	✓	-27	0.00	12
		2	70	70	-1	✓	1800	120	58		54	0.00	7
	C1	1	65	65	0		1800	600	11		731	0.00	39
		2	730	600	-1	✓	1800	600	122	✓	-26	0.00	39
		3	58	58	0		1800	120	48		86	0.00	7
	D1	1	112	112	-1		1800	195	57		57	0.00	12
		2	54	54	0		1800	120	45		100	0.00	7

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	Aexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	34.10	0.00	0.00	0.00	0.00	0.00	0.00
		3	34.13	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	36.01	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	36.38	0.00	0.00	0.00	0.00	0.00	0.00
		3	36.43	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	37.29	0.00	0.00	0.00	0.00	0.00	0.00
	At	1	13.12	28.01	0.50	7.07	67.65	43.29	0.54
		2	13.12	173.60	30.67	435.49	191.61	1149.65	14.41
		3	13.12	65.13	0.94	13.36	104.03	54.09	0.68
	B1	1	3.00	409.75	27.32	387.89	292.65	570.66	7.16
		2	3.00	74.62	1.45	20.60	111.84	78.28	0.98
	C1	1	8.35	28.03	0.51	7.19	67.65	43.97	0.55
		2	8.35	364.27	73.87	1048.90	282.17	1692.99	21.23
		3	8.35	67.75	1.09	15.50	105.96	61.46	0.77
	D1	1	3.03	63.05	1.96	27.85	103.60	116.03	1.45
		2	3.03	65.96	0.99	14.05	104.64	56.50	0.71

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	Aexit	1	0.00	0.00	51.55	0.00	0.00	120.00	
		2	0.00	0.00	49.42	0.00	0.00	21.00	
		3	0.00	0.00	49.47	0.00	0.00	21.00	
	Bexit	1	0.00	0.00	52.18	0.00	0.00	35.00	
	Cexit	1	0.00	0.00	55.08	0.00	0.00	120.00	
		2	0.00	0.00	52.73	0.00	0.00	20.00	
		3	0.00	0.00	52.80	0.00	0.00	20.00	
	Dexit	1	0.00	0.00	54.04	0.00	0.00	27.00	
	At	1	0.00	1.46	18.00	8.13	0.00	0.00	
		2	0.00	43.84	18.00	243.53	0.00	0.00	
		3	0.00	1.82	18.00	10.13	0.00	4.00	
	B1	1	0.00	30.86	4.00	771.61	0.00	0.00	
		2	0.00	2.65	4.00	66.21	0.00	0.00	
	C1	1	0.00	1.49	11.00	13.52	0.00	0.00	
		2	0.00	87.03	11.00	791.21	0.00	0.00	
		3	0.00	2.07	11.00	18.85	0.00	4.00	
	D1	1	0.00	3.93	4.00	98.14	0.00	0.00	
		2	0.00	1.91	4.00	47.64	0.00	4.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
2	22/01/2025 10:29:29	22/01/2025 10:29:29	0.63	17:00	100	2026.40	139.29	123.08	B1/1	3	12	B1/1	Bexit/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	123	-27	3951	1168	1977.91	48.49	2026.40

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	3951	3740	205	✓	123	✓	-27	1220

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	21.50	139.29	1977.91	3866.94	48.49

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
17:00-18:00	791.21	0.00	396.00

A3 - DN 2043 AM
D3 - DN 2043, AM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Stream Flows	Arm Cexit - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream Cexit/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm Aexit - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream Aexit/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsigna PRC
3	22/01/2025 10:29:29	22/01/2025 10:29:30	1.11	08:00	100	13684.51	955.85	251.67	A1/2	5	19	A1/2	Bexit/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
DN 2043 AM			✓	D3		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
DN 2043	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	112	112		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Exclude blocking-back in DoS	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)		100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Cruise time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	Bus	1.00	Default	0.94	30	85

Tram parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
(ALL)		NONE		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID	Allow nearside turn on red
Aexit	1			✓	296.43						Bus		
	2			✓	284.19						Normal		
	3			✓	284.45						Normal		
Bexit	1			✓	300.05						Normal		
Cexit	1			✓	316.73						Bus		
	2			✓	303.20						Normal		
	3			✓	303.59						Normal		
Dexit	1			✓	310.73						Normal		
A1	1				109.30	✓	Sum of lanes	1800	✓		Normal		
	2				109.30	✓	Sum of lanes	1800	✓		Normal		
	3				109.30	✓	Sum of lanes	1800	✓		Normal		
B1	1				25.04	✓	Sum of lanes	1800	✓		Normal		
	2				25.04	✓	Sum of lanes	1800	✓		Normal		
C1	1				69.57	✓	Sum of lanes	1800	✓		Normal		
	2				69.57	✓	Sum of lanes	1800	✓		Normal		
	3				69.57	✓	Sum of lanes	1800	✓		Normal		
D1	1				25.25	✓	Sum of lanes	1800	✓		Normal		
	2				25.25	✓	Sum of lanes	1800	✓		Normal		

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Aexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Bexit	1	1	(untitled)			
Cexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Dexit	1	1	(untitled)			
A1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
B1	1	1	(untitled)			1800
	2	1	(untitled)			1800
C1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
D1	1	1	(untitled)			1800
	2	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Aexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
A1	1	NetworkDefault	100	100	100		18.00		
	2	NetworkDefault	100	100	100		18.00		
	3	NetworkDefault	100	100	100		18.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		11.00		
	2	NetworkDefault	100	100	100		11.00		
	3	NetworkDefault	100	100	100		11.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Bus - Advanced

Arm	Traffic Stream	Dispersion type	Use network default acceleration
(ALL)	1	NetworkDefault	✓

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
Aexit	1	0		0
	2	660	660	
	3	660	660	
Bexit	1	277	277	
Cexit	1	0		0
	2	1070	1070	
	3	1070	1070	
Dexit	1	96	96	
At	1	68	68	
	2	1509	1509	
	3	26	26	
B1	1	484	484	
	2	78	78	
C1	1	21	21	
	2	1121	1121	
	3	81	81	
D1	1	249	249	
	2	196	196	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
At	1	1	C		0	0
	2	1	B		0	0
	3	1	A		0	0
B1	1	1	E		0	0
	2	1	D		0	0
C1	1	1	F		0	0
	2	1	G		0	0
	3	1	H		0	0
D1	1	1	I		0	0
	2	1	J		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	24.78	16.52	5.40
2	(untitled)			Signalised		Farside	14.49	9.66	5.40
3	(untitled)			Signalised		Farside	24.82	16.54	5.40
4	(untitled)			Signalised		Farside	14.49	9.66	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	K	
2	1	L	
3	1	M	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	128	196	121
	2	49	0	435	78
	3	21	81	0	1121
	4	26	68	1509	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/3, Cexit/2, Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/3, Aexit/2, Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	2		1	2	D1/1, Bexit/1	Normal	128
	3		1	4	D1/1, Aexit/3	Normal	61
	4		1	4	D1/1, Aexit/2	Normal	61
	5		1	3	D1/2, Cexit/3	Normal	98
	6		1	3	D1/2, Cexit/2	Normal	98
	7		2	1	B1/1, Dexit/1	Normal	49
	8		2	3	B1/1, Cexit/2	Normal	218
	9		2	3	B1/1, Cexit/3	Normal	218
	10		2	4	B1/2, Aexit/3	Normal	39
	11		2	4	B1/2, Aexit/2	Normal	39
	16		3	1	C1/1, Dexit/1	Normal	21
	17		3	2	C1/3, Bexit/1	Normal	81
	18		3	4	C1/2, Aexit/2	Normal	561
	19		3	4	C1/2, Aexit/3	Normal	561
	21		4	3	A1/2, Cexit/2	Normal	755
	22		4	3	A1/2, Cexit/3	Normal	755
	23		4	2	A1/1, Bexit/1	Normal	68
	24		4	1	A1/3, Dexit/1	Normal	26

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	36	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	36	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	B, C, F, G	1
	2	A, H	1
	3	E, I	1
	4	D, J	1
	5	K, L, M, N	1

Stage Sequences

Controller stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	60, 73, 91, 103, 116	112	

Intergreen Matrix for Controller Stream 1

		To												
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
From	A				5	5	6	5		6	5	5			8
	B				5	5			6	6		5		7	
	C				5	5			6	7		5	6	7	
	D	5	5	5					5	5		8	5		
	E	5	5	5			7	6	6		5		5	7	8
	F	6				6				5	5	7		5	6
	G	6				6				5	5	8		5	
	H		6	6	5	6				5	5		8	5	
	I	6	6	7	5		5	5	5			7	8		5
	J	5				5	5	5	5					8	5
	K	25	25	25	25		25	25		25					
	L			15	15	15			15	15					
	M		25	25		25	25	25	25		25				
	N	15				15	15			15	15				

Interstage Matrix for Controller Stream 1

		To					
		1	2	3	4	5
From	1	0	6	7	5	8
	2	6	0	6	5	8
	3	7	6	0	5	8
	4	5	5	5	0	8
	5	25	25	25	25	0

Resultant Stages

Controller stream	Resultant Stage	Is Base Stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C,F,G	21	60	39	1	36
	2	✓	2	A,H	66	73	7	1	7
	3	✓	3	E,I	79	91	12	1	7
	4	✓	4	D,J	96	103	7	1	7
	5	✓	5	K,L,M,N	111	116	5	1	5

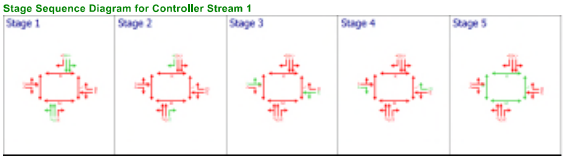
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	66	73	7
	B	1	✓	21	60	39
	C	1	✓	21	60	39
	D	1	✓	96	103	7
	E	1	✓	79	91	12
	F	1	✓	21	60	39
	G	1	✓	21	60	39
	H	1	✓	66	73	7
	I	1	✓	79	91	12
	J	1	✓	96	103	7
	K	1	✓	111	116	5
	L	1	✓	108	116	8
	M	1	✓	111	116	5
	N	1	✓	108	116	8

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1		1	C	21	60	39
A1	2		1	B	21	60	39
A1	3		1	A	66	73	7
B1	1		1	E	79	91	12
B1	2		1	D	96	103	7
C1	1		1	F	21	60	39
C1	2		1	G	21	60	39
C1	3		1	H	66	73	7
D1	1		1	I	79	91	12
D1	2		1	J	96	103	7

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	Aexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	387	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	387	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	0	Unrestricted	249	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	448	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	448	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	0	Unrestricted	67	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	11	694	68	1800	39	28.11	1.58	8.75	7.54	0.58	8.12
		2	252	-64	1510	1800	39	1101.45	475.16	2639.79	6560.33	44.98	6605.31
		3	22	315	26	1800	7	57.23	0.85	4.70	5.87	0.31	6.18
	B1	1	249	-64	485	1800	12	1100.27	151.78	3794.47	2104.88	14.47	2119.35
		2	65	38	78	1800	7	80.97	3.11	77.64	24.91	1.14	26.06
	C1	1	4	2471	21	1800	39	27.11	0.47	4.25	2.25	0.17	2.42
		2	187	-52	1122	1800	39	860.66	281.40	2558.22	3808.98	34.81	3843.79
		3	68	33	81	1800	7	83.92	3.29	29.90	26.81	1.21	28.02
	D1	1	128	-30	250	1800	12	461.04	35.56	889.12	454.64	7.62	462.26
		2	163	-45	196	1800	7	746.11	42.72	1068.04	576.82	6.17	582.99

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	Aexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	387	387	273	✓	Unrestricted	Unrestricted	0		Unrestricted	0.64	120
		3	387	387	273	✓	Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	Bexit	1	249	249	28	✓	Unrestricted	Unrestricted	0		Unrestricted	0.76	120
	Cexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	448	448	622	✓	Unrestricted	Unrestricted	0		Unrestricted	0.52	120
		3	448	448	622	✓	Unrestricted	Unrestricted	0		Unrestricted	0.52	120
	Dexit	1	67	67	29	✓	Unrestricted	Unrestricted	0		Unrestricted	0.76	120
	A1	1	68	68	0		1800	600	11		694	0.00	39
		2	1510	600	-1	✓	1800	600	252	✓	-64	0.00	39
		3	26	26	0		1800	120	22		315	0.00	7
	B1	1	485	195	-1		1800	195	249	✓	-64	0.00	12
		2	78	78	0		1800	120	65		38	0.00	7
	C1	1	21	21	0		1800	600	4		2471	0.00	39
		2	1122	600	-1	✓	1800	600	187	✓	-52	0.00	39
		3	81	81	0		1800	120	68		33	0.00	7
	D1	1	250	195	-1	✓	1800	195	128	✓	-30	0.00	12
		2	196	120	0		1800	120	163	✓	-45	0.00	7

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	Aexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	34.10	0.00	0.00	0.00	0.00	0.00	0.00
		3	34.13	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	36.01	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	36.38	0.00	0.00	0.00	0.00	0.00	0.00
		3	36.43	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	37.29	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	13,12	28,11	0,53	7,54	68,38	46,50	0,58
		2	13,12	1101,45	462,00	6560,33	597,87	3587,22	44,98
		3	13,12	57,23	0,41	5,87	96,59	25,11	0,31
	B1	1	3,00	1100,27	148,23	2104,88	591,88	1154,17	14,47
		2	3,00	80,97	1,75	24,91	117,00	91,26	1,14
	C1	1	8,35	27,11	0,16	2,25	65,77	13,81	0,17
		2	8,35	860,66	268,24	3808,98	462,67	2776,03	34,81
		3	8,35	83,92	1,89	26,81	119,37	96,69	1,21
	D1	1	3,03	461,04	32,02	454,64	311,73	607,86	7,62
		2	3,03	746,11	40,62	576,82	409,84	491,81	6,17

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	Aexit	1	0.00	0.00	51.55	0.00	0.00	120.00	
		2	0.00	0.00	49.42	0.00	0.00	19.00	
		3	0.00	0.00	49.47	0.00	0.00	19.00	
	Bexit	1	0.00	0.00	52.18	0.00	0.00	25.00	
	Cexit	1	0.00	0.00	55.08	0.00	0.00	120.00	
		2	0.00	0.00	52.73	0.00	0.00	12.00	
		3	0.00	0.00	52.80	0.00	0.00	12.00	
	Dexit	1	0.00	0.00	54.04	0.00	0.00	70.00	
	A1	1	0.00	1.58	18.00	8.75	0.00	0.00	
		2	0.00	475.16	18.00	2639.79	0.00	0.00	
		3	0.00	0.85	18.00	4.70	0.00	6.00	
	B1	1	0.00	151.78	4.00	3794.47	0.00	0.00	
		2	0.00	3.11	4.00	77.64	0.00	0.00	
	C1	1	0.00	0.47	11.00	4.25	0.00	39.00	
		2	0.00	281.40	11.00	2558.22	0.00	0.00	
		3	0.00	3.29	11.00	29.90	0.00	0.00	
	D1	1	0.00	35.56	4.00	889.12	0.00	0.00	
		2	0.00	42.72	4.00	1068.04	0.00	0.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
3	22/01/2025 10:29:29	22/01/2025 10:29:30	1.11	08:00	100	13684.51	955.85	251.67	A1/2	5	19	A1/2	Bexit/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	252	-64	5821	1168	13573.04	111.47	13684.51

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5821	3968	1845	✓	252	✓	-64	1220

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	17.99	955.85	13573.04	8890.46	111.47

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
08:00-09:00	3794.47	0.00	442.00

A4 - DN 2043 PM
D4 - DN 2043, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Stream Flows	Arm Cexit - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream Cexit/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm Aexit - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream Aexit/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
4	22/01/2025 10:29:30	22/01/2025 10:29:30	0.52	17:00	100	14637.87	1023.00	245.61	A1/2	5	19	A1/2	Bexit/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
DN 2043 PM			✓	D4		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
DN 2043	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	113	113		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Exclude blocking-back in DoS	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)		100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Cruise time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	Bus	1.00	Default	0.94	30	85

Tram parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
(ALL)		NONE		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID	Allow nearside turn on red
Aexit	1			✓	296.43						Bus		
	2			✓	284.19						Normal		
	3			✓	284.45						Normal		
Bexit	1			✓	300.05						Normal		
Cexit	1			✓	316.73						Bus		
	2			✓	303.20						Normal		
	3			✓	303.59						Normal		
Dexit	1			✓	310.73						Normal		
A1	1				109.30	✓	Sum of lanes	1800	✓		Normal		
	2				109.30	✓	Sum of lanes	1800	✓		Normal		
	3				109.30	✓	Sum of lanes	1800	✓		Normal		
	2				25.04	✓	Sum of lanes	1800	✓		Normal		
C1	1				69.57	✓	Sum of lanes	1800	✓		Normal		
	2				69.57	✓	Sum of lanes	1800	✓		Normal		
	3				69.57	✓	Sum of lanes	1800	✓		Normal		
D1	1				25.25	✓	Sum of lanes	1800	✓		Normal		
	2				25.25	✓	Sum of lanes	1800	✓		Normal		

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Aexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Bexit	1	1	(untitled)			
Cexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Dexit	1	1	(untitled)			
A1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
B1	1	1	(untitled)			1800
	2	1	(untitled)			1800
C1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
D1	1	1	(untitled)			1800
	2	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Aexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
A1	1	NetworkDefault	100	100	100		18.00		
	2	NetworkDefault	100	100	100		18.00		
	3	NetworkDefault	100	100	100		18.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		11.00		
	2	NetworkDefault	100	100	100		11.00		
	3	NetworkDefault	100	100	100		11.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Bus - Advanced

Arm	Traffic Stream	Dispersion type	Use network default acceleration
(ALL)	1	NetworkDefault	✓

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
Aexit	1	0		0
	2	707	707	
	3	707	707	
Bexit	1	245	245	
Cexit	1	0		0
	2	1029	1029	
	3	1029	1029	
Dexit	1	164	164	
A1	1	21	21	
	2	1399	1399	
	3	15	15	
B1	1	549	549	
	2	59	59	
C1	1	20	20	
	2	1295	1295	
	3	88	88	
D1	1	195	195	
	2	239	239	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
A1	1	1	C		0	0
	2	1	B		0	0
	3	1	A		0	0
B1	1	1	E		0	0
	2	1	D		0	0
C1	1	1	F		0	0
	2	1	G		0	0
	3	1	H		0	0
D1	1	1	I		0	0
	2	1	J		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	24.78	16.52	5.40
2	(untitled)			Signalised		Farside	14.49	9.66	5.40
3	(untitled)			Signalised		Farside	24.82	16.54	5.40
4	(untitled)			Signalised		Farside	14.49	9.66	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	K	
2	1	L	
3	1	M	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	136	239	59
	2	129	0	420	59
	3	20	88	0	1295
	4	15	21	1399	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/3, Cexit/2, Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/3, Aexit/2, Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	2		1	2	D1/1, Bexit/1	Normal	136
	3		1	4	D1/1, Aexit/3	Normal	30
	4		1	4	D1/1, Aexit/2	Normal	30
	5		1	3	D1/2, Cexit/3	Normal	120
	6		1	3	D1/2, Cexit/2	Normal	120
	7		2	1	B1/1, Dexit/1	Normal	129
	8		2	3	B1/1, Cexit/2	Normal	210
	9		2	3	B1/1, Cexit/3	Normal	210
	10		2	4	B1/2, Aexit/3	Normal	30
	11		2	4	B1/2, Aexit/2	Normal	30
	16		3	1	C1/1, Dexit/1	Normal	20
	17		3	2	C1/3, Bexit/1	Normal	88
	18		3	4	C1/2, Aexit/2	Normal	648
	19		3	4	C1/2, Aexit/3	Normal	648
	21		4	3	A1/2, Cexit/2	Normal	700
	22		4	3	A1/2, Cexit/3	Normal	700
	23		4	2	A1/1, Bexit/1	Normal	21
	24		4	1	A1/3, Dexit/1	Normal	15

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	36	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	36	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	M, K, L, N	1
	2	B, C, F, G	1
	3	H, A	1
	4	E, I	1
	5	D, J	1

Losing / Gaining Phase Delays

Controller stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	L	1	2	10
	2	Losing	N	1	2	10
	3	Losing	F	2	3	1
	4	Losing	G	2	3	1
	5	Losing	A	3	4	1

Stage Sequences

Controller stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	14, 76, 89, 109, 1	113	

Intergreen Matrix for Controller Stream 1

		To												
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
From	A				5	5	6	5		6	5	5			8
	B				5	5			6	6		5		7	
	C				5	5			6	7		5	6	7	
	D	5	5	5					5	5		8	5		
	E	5	5	5			7	6	6		5		5	7	8
	F	6				6				5	5	7		5	6
	G	6				6				5	5	8		5	
	H		6	6	5	6				5	5		8	5	
	I	6	6	7	5		5	5	5			7	8		5
	J	5				5	5	5	5					8	5
	K	25	25	25	25		25	25		25					
	L			15	15	15			15	15					
	M		25	25		25	25	25	25		25				
	N	15				15	15			15	15				

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	25	25	25	25
	2	8	0	7	7	5
	3	8	6	0	7	5
	4	8	7	6	0	5
	5	8	5	5	5	0

Resultant Stages

Controller stream	Resultant Stage	Is Base Stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	M,K,L,N	9	14	5	1	5
	2	✓	2	B,C,F,G	39	76	37	1	36
	3	✓	3	H,A	83	89	6	1	6
	4	✓	4	E,I	96	109	13	1	7
	5	✓	5	D,J	114	1	7	1	7

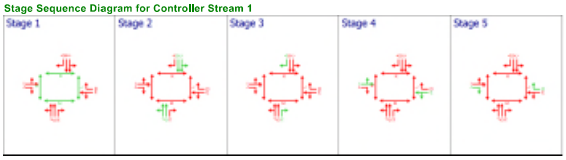
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	83	90	7
	B	1	✓	39	76	37
	C	1	✓	39	76	37
	D	1	✓	114	1	7
	E	1	✓	95	109	14
	F	1	✓	39	77	38
	G	1	✓	39	77	38
	H	1	✓	82	89	7
	I	1	✓	96	109	13
	J	1	✓	114	1	7
	K	1	✓	9	14	5
	L	1	✓	6	24	18
	M	1	✓	9	14	5
	N	1	✓	6	24	18

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1		1	C	39	76	37
A1	2		1	B	39	76	37
A1	3		1	A	83	90	7
B1	1		1	E	95	109	14
B1	2		1	D	114	1	7
C1	1		1	F	39	77	38
C1	2		1	G	39	77	38
C1	3		1	H	82	89	7
D1	1		1	I	96	109	13
D1	2		1	J	114	1	7

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	Aexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	353	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	353	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	0	Unrestricted	245	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	431	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	431	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	0	Unrestricted	88	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	4	2343	21	1800	37	28.48	0.48	2.66	2.36	0.18	2.54
		2	246	-63	1400	1800	37	1084.72	434.18	2412.13	5990.04	41.85	6031.89
		3	13	620	15	1800	7	54.87	0.48	2.64	3.25	0.18	3.42
	B1	1	244	-63	549	1800	14	1086.07	169.78	4244.55	2351.88	16.43	2368.31
		2	50	80	60	1800	7	68.72	2.16	54.02	16.26	0.80	17.07
	C1	1	3	2533	20	1800	38	27.78	0.45	4.10	2.19	0.17	2.36
		2	222	-59	1296	1800	38	1006.92	375.25	3411.34	5147.37	39.31	5186.68
		3	73	23	88	1800	7	92.38	3.77	34.31	32.07	1.38	33.45
	D1	1	93	-4	196	1800	13	123.77	10.30	257.56	95.69	3.65	99.34
		2	200	-55	240	1800	7	935.32	64.45	1611.36	885.44	7.39	892.82

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	Aexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	353	353	354	✓	Unrestricted	Unrestricted	0		Unrestricted	0.73	120
		3	353	353	354	✓	Unrestricted	Unrestricted	0		Unrestricted	0.73	120
	Bexit	1	245	245	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	120
	Cexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	431	431	598	✓	Unrestricted	Unrestricted	0		Unrestricted	0.52	120
		3	431	431	598	✓	Unrestricted	Unrestricted	0		Unrestricted	0.52	120
	Dexit	1	88	88	76	✓	Unrestricted	Unrestricted	0		Unrestricted	0.76	120
	A1	1	21	21	0		1800	570	4		2343	0.00	37
		2	1400	570	-1		1800	570	246	✓	-63	0.00	37
		3	15	15	0		1800	120	13		620	0.00	7
	B1	1	549	225	0		1800	225	244	✓	-63	0.00	14
		2	60	60	-1		1800	120	50		80	0.00	7
	C1	1	20	20	0		1800	585	3		2533	0.00	38
		2	1296	585	-1		1800	585	222	✓	-59	0.00	38
		3	88	88	0		1800	120	73		23	0.00	7
	D1	1	196	196	-1		1800	210	93	✓	-4	0.00	13
		2	240	120	-1		1800	120	200	✓	-55	0.00	7

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	Aexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	34.10	0.00	0.00	0.00	0.00	0.00	0.00
		3	34.13	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	36.01	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	36.38	0.00	0.00	0.00	0.00	0.00	0.00
		3	36.43	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	37.29	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	13.12	28.48	0.17	2.36	67.45	14.16	0.18
		2	13.12	1084.72	421.83	5990.04	585.49	3337.30	41.85
		3	13.12	54.87	0.23	3.25	94.12	14.12	0.18
	B1	1	3.00	1086.07	165.83	2351.88	582.22	1309.99	16.43
		2	3.00	68.72	1.15	16.26	106.68	64.01	0.80
	C1	1	8.35	27.78	0.15	2.19	66.61	13.32	0.17
		2	8.35	1006.92	362.49	5147.37	535.87	3134.87	39.31
		3	8.35	92.38	2.26	32.07	125.38	110.34	1.38
	D1	1	3.03	123.77	6.74	95.69	148.70	291.45	3.65
		2	3.03	935.32	62.35	885.44	490.88	589.05	7.39

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	Aexit	1	0.00	0.00	51.55	0.00	0.00	120.00	
		2	0.00	0.00	49.42	0.00	0.00	23.00	
		3	0.00	0.00	49.47	0.00	0.00	22.00	
	Bexit	1	0.00	0.00	52.18	0.00	0.00	50.00	
	Cexit	1	0.00	0.00	55.08	0.00	0.00	120.00	
		2	0.00	0.00	52.73	0.00	0.00	12.00	
		3	0.00	0.00	52.80	0.00	0.00	12.00	
	Dexit	1	0.00	0.00	54.04	0.00	0.00	62.00	
	A1	1	0.00	0.48	18.00	2.66	0.00	37.00	
		2	0.00	434.18	18.00	2412.13	0.00	0.00	
		3	0.00	0.48	18.00	2.64	0.00	7.00	
	B1	1	0.00	169.78	4.00	4244.55	0.00	0.00	
		2	0.00	2.16	4.00	54.02	0.00	0.00	
	C1	1	0.00	0.45	11.00	4.10	0.00	38.00	
		2	0.00	375.25	11.00	3411.34	0.00	0.00	
		3	0.00	3.77	11.00	34.31	0.00	0.00	
	D1	1	0.00	10.30	4.00	257.56	0.00	0.00	
		2	0.00	64.45	4.00	1611.36	0.00	0.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
4	22/01/2025 10:29:30	22/01/2025 10:29:30	0.52	17:00	100	14637.87	1023.00	245.61	A1/2	5	19	A1/2	Bexit/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	246	-63	5785	1165	14526.55	111.33	14637.87

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5785	3800	1975	✓	246	✓	-63	1257

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	17.50	1023.00	14526.55	8878.62	111.33

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
17:00-18:00	4244.55	0.00	503.00

TRANSYT 16

Version: 16.1.6.2289

Filename: Junction 5 DS,t15,t16
Path: G:\2023\p230156\calcs\transyt
Report generation date: 04/02/2025 12:23:40

»A1 - DS 2028 AM : D1 - DS 2028, AM :
»A2 - DS 2028 PM : D2 - DS 2028, PM :
»A3 - DS 2043 AM : D3 - DS 2043, AM :
»A4 - DS 2043 PM : D4 - DS 2043, PM :

Summary of network performance

	AM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	DS 2028 AM - DS 2028				
Network	A1 D1	6071.14	422.32	176% (TS A1/2)	4 (15%)

	PM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	DS 2028 PM - DS 2028				
Network	A2 D2	3369.43	233.05	138% (TS C1/2)	3 (12%)

	AM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	DS 2043 AM - DS 2043				
Network	A3 D3	15124.59	1056.88	273% (TS A1/2)	5 (19%)

	PM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	DS 2043 PM - DS 2043				
Network	A4 D4	16069.50	1123.37	261% (TS B1/1)	5 (19%)

File summary

File description

File title	(untitled)
Location	
Site number	
Driving side	Left
Date	22/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HEADOFFICE\GarveyD
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	c m

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

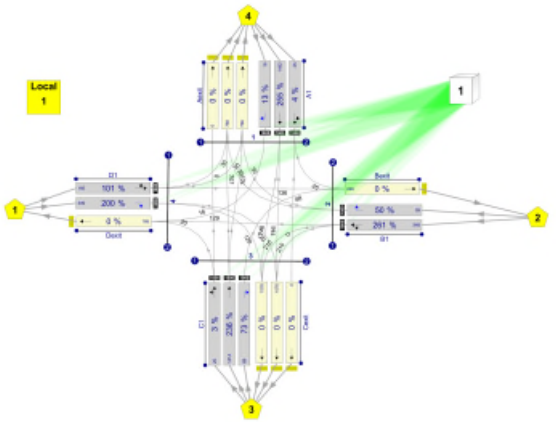
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
Cyclotime 0s / 100s
Timesteps 99 / 100
4, 4
Diagram produced using TRANSYT 16.1.6.2289

A1 - DS 2028 AM
D1 - DS 2028, AM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Stream Flows	Arm Cexit - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream Cexit/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm Aexit - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream Aexit/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	04/02/2025 12:23:31	04/02/2025 12:23:31	0.50	08:00	100	6071.14	422.32	176.49	A1/2	4	15	A1/2	Bexit/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
DS 2028 AM			✓	D1		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
DS 2028	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	116	116		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Exclude blocking-back in DoS	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)		100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Cruise time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	Bus	1.00	Default	0.94	30	85

Tram parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
(ALL)		NONE		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID	Allow nearside turn on red
Aexit	1			✓	296.43						Bus		
	2			✓	284.19						Normal		
	3			✓	284.45						Normal		
Bexit	1			✓	300.05						Normal		
Cexit	1			✓	316.73						Bus		
	2			✓	303.20						Normal		
	3			✓	303.59						Normal		
Dexit	1			✓	310.73						Normal		
A1	1				109.30	✓	Sum of lanes	1800	✓		Normal		
	2				109.30	✓	Sum of lanes	1800	✓		Normal		
	3				109.30	✓	Sum of lanes	1800	✓		Normal		
B1	1				25.04	✓	Sum of lanes	1800	✓		Normal		
	2				25.04	✓	Sum of lanes	1800	✓		Normal		
C1	1				69.57	✓	Sum of lanes	1800	✓		Normal		
	2				69.57	✓	Sum of lanes	1800	✓		Normal		
	3				69.57	✓	Sum of lanes	1800	✓		Normal		
D1	1				25.25	✓	Sum of lanes	1800	✓		Normal		
	2				25.25	✓	Sum of lanes	1800	✓		Normal		

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Aexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Bexit	1	1	(untitled)			
Cexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Dexit	1	1	(untitled)			
A1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
B1	1	1	(untitled)			1800
	2	1	(untitled)			1800
C1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
D1	1	1	(untitled)			1800
	2	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Aexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
A1	1	NetworkDefault	100	100	100		18.00		
	2	NetworkDefault	100	100	100		18.00		
	3	NetworkDefault	100	100	100		18.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		11.00		
	2	NetworkDefault	100	100	100		11.00		
	3	NetworkDefault	100	100	100		11.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Bus - Advanced

Arm	Traffic Stream	Dispersion type	Use network default acceleration
(ALL)	1	NetworkDefault	✓

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
Aexit	1	0		0
	2	462	462	
	3	462	462	
Bexit	1	300	300	
Cexit	1	0		0
	2	620	620	
	3	620	620	
Dexit	1	93	93	
A1	1	38	38	
	2	1007	1007	
	3	22	22	
B1	1	230	230	
	2	71	71	
C1	1	22	22	
	2	732	732	
	3	63	63	
D1	1	320	320	
	2	52	52	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
A1	1	1	C		0	0
	2	1	B		0	0
	3	1	A		0	0
B1	1	1	E		0	0
	2	1	D		0	0
C1	1	1	F		0	0
	2	1	G		0	0
	3	1	H		0	0
D1	1	1	I		0	0
	2	1	J		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	24.78	16.52	5.40
2	(untitled)			Signalised		Farside	14.49	9.66	5.40
3	(untitled)			Signalised		Farside	24.82	16.54	5.40
4	(untitled)			Signalised		Farside	14.49	9.66	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	K	
2	1	L	
3	1	M	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	199	52	121
	2	49	0	181	71
	3	22	63	0	732
	4	22	38	1007	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/3, Cexit/2, Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/3, Aexit/2, Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	2		1	2	D1/1, Bexit/1	Normal	199
	3		1	4	D1/1, Aexit/3	Normal	61
	4		1	4	D1/1, Aexit/2	Normal	61
	5		1	3	D1/2, Cexit/3	Normal	26
	6		1	3	D1/2, Cexit/2	Normal	26
	7		2	1	B1/1, Dexit/1	Normal	49
	8		2	3	B1/1, Cexit/2	Normal	91
	9		2	3	B1/1, Cexit/3	Normal	91
	10		2	4	B1/2, Aexit/3	Normal	36
	11		2	4	B1/2, Aexit/2	Normal	36
	16		3	1	C1/1, Dexit/1	Normal	22
	17		3	2	C1/3, Bexit/1	Normal	63
	18		3	4	C1/2, Aexit/2	Normal	366
	19		3	4	C1/2, Aexit/3	Normal	366
	21		4	3	A1/2, Cexit/2	Normal	504
	22		4	3	A1/2, Cexit/3	Normal	504
	23		4	2	A1/1, Bexit/1	Normal	38
	24		4	1	A1/3, Dexit/1	Normal	22

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	36	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	36	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	A, H	1
	2	E, I	1
	3	D, J	1
	4	M, K, L, N	1
	5	G, F, C, B	1

Losing / Gaining Phase Delays

Controller stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Losing	H	1	2	1	
	2	Losing	L	4	5	10	
	3	Losing	N	4	5	10	
	4	Losing	C	5	1	1	
	5	Losing	B	5	1	1	
	6	Gaining	A	5	1	3	9

Stage Sequences

Controller stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	14, 32, 44, 57, 118	116	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A				5	5	6	5		6	5	5			8
B				5	5			6	6		5		7	
C				5	5			6	7		5	6	7	
D	5	5	5					5	5		8	5		
E	5	5	5			7	6	6		5		5	7	8
F	6				6				5	5	7		5	6
G	6				6				5	5	8		5	
H		6	6	5	6				5	5		8	5	
I	6	6	7	5		5	5	5			7	8		5
J	5				5	5	5	5					8	5
K	25	25	25	25		25	25		25					
L			15	15	15			15	15					
M		25	25		25	25	25	25		25				
N	15				15	15			15	15				

Interstage Matrix for Controller Stream 1

From \ To	1	2	3	4	5
1	0	7	5	8	6
2	6	0	5	8	7
3	5	5	0	8	5
4	25	25	25	0	25
5	9	7	5	8	0

Resultant Stages

Controller stream	Resultant Stage	Is Base Stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A,H	7	14	7	1	7
	2	✓	2	E,I	21	32	11	1	7
	3	✓	3	D,J	37	44	7	1	7
	4	✓	4	M,K,L,N	52	57	5	1	5
	5	✓	5	G,F,C,B	82	118	36	1	36

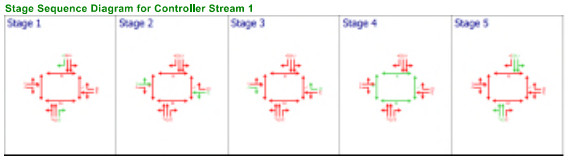
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	7	14	7
	B	1	✓	82	119	37
	C	1	✓	82	119	37
	D	1	✓	37	44	7
	E	1	✓	21	32	11
	F	1	✓	82	118	36
	G	1	✓	82	118	36
	H	1	✓	5	15	10
	I	1	✓	20	32	12
	J	1	✓	37	44	7
	K	1	✓	52	57	5
	L	1	✓	49	67	18
	M	1	✓	52	57	5
	N	1	✓	49	67	18

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1		1	C	82	119	37
A1	2		1	B	82	119	37
A1	3		1	A	7	14	7
B1	1		1	E	21	32	11
B1	2		1	D	37	44	7
C1	1		1	F	82	118	36
C1	2		1	G	82	118	36
C1	3		1	H	5	15	10
D1	1		1	I	20	32	12
D1	2		1	J	37	44	7

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	Aexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	351	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	351	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	0	Unrestricted	222	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	382	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	382	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	0	Unrestricted	82	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	7	1250	38	1800	37	28.88	0.88	4.88	4.33	0.33	4.65
		2	176	-49	1006	1800	37	805.67	237.49	1319.39	3196.99	31.41	3228.40
		3	18	391	22	1800	7	56.35	0.71	3.95	4.89	0.26	5.15
	B1	1	128	-30	231	1800	11	464.44	33.05	826.30	423.19	7.05	430.24
		2	60	50	72	1800	7	76.04	2.75	68.79	21.60	1.02	22.62
	C1	1	4	2170	22	1800	36	29.20	0.51	4.67	2.53	0.19	2.72
		2	132	-32	732	1800	36	474.21	108.37	985.18	1369.20	22.41	1391.61
		3	36	136	63	1800	10	57.98	2.08	18.88	14.41	0.77	15.18
	D1	1	165	-45	321	1800	12	747.49	70.20	1754.97	946.44	10.09	956.53
		2	43	108	52	1800	7	65.13	1.82	45.60	13.36	0.68	14.04

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	Aexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	351	351	111	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
		3	351	351	111	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	Bexit	1	222	222	78	✓	Unrestricted	Unrestricted	0		Unrestricted	0.82	120
	Cexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	382	382	238	✓	Unrestricted	Unrestricted	0		Unrestricted	0.63	120
		3	382	382	238	✓	Unrestricted	Unrestricted	0		Unrestricted	0.62	120
	Dexit	1	82	82	11	✓	Unrestricted	Unrestricted	0		Unrestricted	0.74	120
	A1	1	38	38	0		1800	570	7		1250	0.00	37
		2	1006	570	1		1800	570	176	✓	-49	0.00	37
		3	22	22	0		1800	120	18		391	0.00	7
	B1	1	231	180	-1	✓	1800	180	128	✓	-30	0.00	11
		2	72	72	-1		1800	120	60		50	0.00	7
	C1	1	22	22	0		1800	555	4		2170	0.00	36
		2	732	555	0		1800	555	132	✓	-32	0.00	36
		3	63	63	0		1800	165	38		136	0.00	10
	D1	1	321	195	-1	✓	1800	195	165	✓	-45	0.00	12
		2	52	52	0		1800	120	43		108	0.00	7

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	Aexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	34.10	0.00	0.00	0.00	0.00	0.00	0.00
		3	34.13	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	36.01	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	36.38	0.00	0.00	0.00	0.00	0.00	0.00
		3	36.43	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	37.29	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	13.12	28.88	0.30	4.33	68.37	25.98	0.33
		2	13.12	805.67	225.14	3196.99	439.43	2504.78	31.41
		3	13.12	56.35	0.34	4.89	95.96	21.11	0.26
	B1	1	3.00	464.44	29.80	423.19	312.50	562.50	7.05
		2	3.00	76.04	1.52	21.60	112.88	81.27	1.02
	C1	1	8.35	29.20	0.18	2.53	68.90	15.16	0.19
		2	8.35	474.21	96.42	1369.20	322.09	1787.60	22.41
		3	8.35	57.98	1.01	14.41	97.83	61.63	0.77
	D1	1	3.03	747.49	66.65	946.44	412.49	804.36	10.09
		2	3.03	65.13	0.94	13.36	104.03	54.09	0.68

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	Aexit	1	0.00	0.00	51.55	0.00	0.00	120.00	
		2	0.00	0.00	49.42	0.00	0.00	20.00	
		3	0.00	0.00	49.47	0.00	0.00	20.00	
	Bexit	1	0.00	0.00	52.18	0.00	0.00	37.00	
	Cexit	1	0.00	0.00	55.08	0.00	0.00	120.00	
		2	0.00	0.00	52.73	0.00	0.00	19.00	
		3	0.00	0.00	52.80	0.00	0.00	19.00	
	Dexit	1	0.00	0.00	54.04	0.00	0.00	63.00	
	A1	1	0.00	0.88	18.00	4.88	0.00	36.00	
		2	0.00	237.49	18.00	1319.39	0.00	0.00	
		3	0.00	0.71	18.00	3.95	0.00	6.00	
	B1	1	0.00	33.05	4.00	826.30	0.00	0.00	
		2	0.00	2.75	4.00	68.79	0.00	0.00	
	C1	1	0.00	0.51	11.00	4.67	0.00	35.00	
		2	0.00	108.37	11.00	985.18	0.00	0.00	
		3	0.00	2.08	11.00	18.88	0.00	0.00	
	D1	1	0.00	70.20	4.00	1754.97	0.00	0.00	
		2	0.00	1.82	4.00	45.60	0.00	4.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	04/02/2025 12:23:31	04/02/2025 12:23:31	0.50	08:00	100	6071.14	422.32	176.49	A1/2	4	15	A1/2	Bexit/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	176	-49	4328	1160	5996.93	74.21	6071.14

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4328	3538	786	✓	176	✓	-49	1252

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	19.78	422.32	5996.93	5918.48	74.21

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
08:00-09:00	1754.97	0.00	499.00

A2 - DS 2028 PM
D2 - DS 2028, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Stream Flows	Arm Cexit - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream Cexit/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm Aexit - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream Aexit/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsigna PRC
2	04/02/2025 12:23:31	04/02/2025 12:23:31	0.89	17:00	100	3369.43	233.05	138.21	C1/2	3	12	C1/2	Bexit/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
DS 2028 PM			✓	D2		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
DS 2028	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	112	112		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Exclude blocking-back in DoS	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)		100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Cruise time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	Bus	1.00	Default	0.94	30	85

Tram parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
(ALL)		NONE		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID	Allow nearside turn on red
Aexit	1			✓	296.43						Bus		
	2			✓	284.19						Normal		
	3			✓	284.45						Normal		
Bexit	1			✓	300.05						Normal		
Cexit	1			✓	316.73						Bus		
	2			✓	303.20						Normal		
	3			✓	303.59						Normal		
Dexit	1			✓	310.73						Normal		
A1	1				109.30	✓	Sum of lanes	1800	✓		Normal		
	2				109.30	✓	Sum of lanes	1800	✓		Normal		
	3				109.30	✓	Sum of lanes	1800	✓		Normal		
B1	1				25.04	✓	Sum of lanes	1800	✓		Normal		
	2				25.04	✓	Sum of lanes	1800	✓		Normal		
C1	1				69.57	✓	Sum of lanes	1800	✓		Normal		
	2				69.57	✓	Sum of lanes	1800	✓		Normal		
	3				69.57	✓	Sum of lanes	1800	✓		Normal		
D1	1				25.25	✓	Sum of lanes	1800	✓		Normal		
	2				25.25	✓	Sum of lanes	1800	✓		Normal		

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Aexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Bexit	1	1	(untitled)			
Cexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Dexit	1	1	(untitled)			
A1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
B1	1	1	(untitled)			1800
	2	1	(untitled)			1800
C1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
D1	1	1	(untitled)			1800
	2	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Aexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
A1	1	NetworkDefault	100	100	100		18.00		
	2	NetworkDefault	100	100	100		18.00		
	3	NetworkDefault	100	100	100		18.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		11.00		
	2	NetworkDefault	100	100	100		11.00		
	3	NetworkDefault	100	100	100		11.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Bus - Advanced

Arm	Traffic Stream	Dispersion type	Use network default acceleration
(ALL)	1	NetworkDefault	✓

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
Aexit	1	0		0
	2	490	490	
	3	490	490	
Bexit	1	176	176	
Cexit	1	0		0
	2	457	457	
	3	457	457	
Dexit	1	226	226	
At	1	68	68	
	2	728	728	
	3	53	53	
B1	1	240	240	
	2	69	69	
C1	1	65	65	
	2	850	850	
	3	58	58	
D1	1	111	111	
	2	54	54	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
At	1	1	C		0	0
	2	1	B		0	0
	3	1	A		0	0
B1	1	1	E		0	0
	2	1	D		0	0
C1	1	1	F		0	0
	2	1	G		0	0
	3	1	H		0	0
D1	1	1	I		0	0
	2	1	J		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	24.78	16.52	5.40
2	(untitled)			Signalised		Farside	14.49	9.66	5.40
3	(untitled)			Signalised		Farside	24.82	16.54	5.40
4	(untitled)			Signalised		Farside	14.49	9.66	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	K	
2	1	L	
3	1	M	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	50	54	61
	2	108	0	132	69
	3	65	58	0	850
	4	53	68	728	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/3, Cexit/2, Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/3, Aexit/2, Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	2		1	2	D1/1, Bexit/1	Normal	50
	3		1	4	D1/1, Aexit/3	Normal	31
	4		1	4	D1/1, Aexit/2	Normal	31
	5		1	3	D1/2, Cexit/3	Normal	27
	6		1	3	D1/2, Cexit/2	Normal	27
	7		2	1	B1/1, Dexit/1	Normal	108
	8		2	3	B1/1, Cexit/2	Normal	66
	9		2	3	B1/1, Cexit/3	Normal	66
	10		2	4	B1/2, Aexit/3	Normal	35
	11		2	4	B1/2, Aexit/2	Normal	35
	16		3	1	C1/1, Dexit/1	Normal	65
	17		3	2	C1/3, Bexit/1	Normal	58
	18		3	4	C1/2, Aexit/2	Normal	425
	19		3	4	C1/2, Aexit/3	Normal	425
	21		4	3	A1/2, Cexit/2	Normal	364
	22		4	3	A1/2, Cexit/3	Normal	364
	23		4	2	A1/1, Bexit/1	Normal	68
	24		4	1	A1/3, Dexit/1	Normal	53

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	36	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	36	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	B, C, F, G	1
	2	A, H	1
	3	E, I	1
	4	D, J	1
	5	K, L, M, N	1

Stage Sequences

Controller stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	61, 74, 91, 103, 116	112	

Intergreen Matrix for Controller Stream 1

		To												
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
From	A				5	5	6	5		6	5	5			8
	B				5	5			6	6		5		7	
	C				5	5			6	7		5	6	7	
	D	5	5	5					5	5		8	5		
	E	5	5	5			7	6	6		5		5	7	6
	F	6				6				5	5	7		5	6
	G	6				6				5	5	8		5	
	H		6	6	5	6				5	5		8	5	
	I	6	6	7	5		5	5	5			7	8		5
	J	5				5	5	5	5					8	5
	K	25	25	25	25		25	25		25					
	L			15	15	15			15	15					
	M		25	25		25	25	25	25		25				
	N	15				15	15			15	15				

Interstage Matrix for Controller Stream 1

		To					
		1	2	3	4	5
From	1	0	6	7	5	8
	2	6	0	6	5	8
	3	7	6	0	5	8
	4	5	5	5	0	8
	5	25	25	25	25	0

Resultant Stages

Controller stream	Resultant Stage	Is Base Stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C,F,G	21	61	40	1	36
	2	✓	2	A,H	67	74	7	1	7
	3	✓	3	E,I	80	91	11	1	7
	4	✓	4	D,J	96	103	7	1	7
	5	✓	5	K,L,M,N	111	116	5	1	5

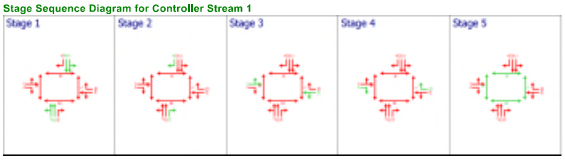
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	67	74	7
	B	1	✓	21	61	40
	C	1	✓	21	61	40
	D	1	✓	96	103	7
	E	1	✓	80	91	11
	F	1	✓	21	61	40
	G	1	✓	21	61	40
	H	1	✓	67	74	7
	I	1	✓	80	91	11
	J	1	✓	96	103	7
	K	1	✓	111	116	5
	L	1	✓	108	116	8
	M	1	✓	111	116	5
	N	1	✓	108	116	8

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1		1	C	21	61	40
A1	2		1	B	21	61	40
A1	3		1	A	67	74	7
B1	1		1	E	80	91	11
B1	2		1	D	96	103	7
C1	1		1	F	21	61	40
C1	2		1	G	21	61	40
C1	3		1	H	67	74	7
D1	1		1	I	80	91	11
D1	2		1	J	96	103	7

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	Aexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	374	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	374	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	0	Unrestricted	176	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	384	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	384	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	0	Unrestricted	199	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	11	714	68	1800	40	27.40	1.56	8.64	7.35	0.58	7.92
		2	118	-24	728	1800	40	325.42	79.39	441.05	934.47	20.56	955.03
		3	44	104	53	1800	7	65.54	1.86	10.36	13.70	0.69	14.39
	B1	1	133	-33	240	1800	11	511.34	37.34	933.49	484.07	7.43	491.50
		2	58	54	70	1800	7	74.62	2.65	66.21	20.60	0.98	21.59
	C1	1	11	752	65	1800	40	27.33	1.47	13.35	7.01	0.54	7.55
		2	138	-35	850	1800	40	531.66	139.11	1264.66	1782.55	26.41	1808.95
		3	48	86	58	1800	7	67.75	2.07	16.85	15.50	0.77	16.27
	D1	1	62	45	112	1800	11	67.78	4.07	101.85	29.94	1.51	31.45
		2	45	100	54	1800	7	65.96	1.91	47.64	14.05	0.71	14.76

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	Aexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	374	374	117	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
		3	374	374	117	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	Bexit	1	176	176	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	120
	Cexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	384	384	73	✓	Unrestricted	Unrestricted	0		Unrestricted	0.64	120
		3	384	384	73	✓	Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	Dexit	1	199	199	27	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	A1	1	68	68	0		1800	615	11		714	0.00	40
		2	728	615	0		1800	615	118	✓	-24	0.00	40
		3	53	53	0		1800	120	44		104	0.00	7
	B1	1	240	180	0		1800	180	133	✓	-33	0.00	11
		2	70	70	-1	✓	1800	120	58		54	0.00	7
	C1	1	65	65	0		1800	615	11		752	0.00	40
		2	850	615	0		1800	615	138	✓	-35	0.00	40
		3	58	58	0		1800	120	48		86	0.00	7
	D1	1	112	112	-1		1800	180	62		45	0.00	11
		2	54	54	0		1800	120	45		100	0.00	7

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	Aexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	34.10	0.00	0.00	0.00	0.00	0.00	0.00
		3	34.13	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	36.01	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	36.38	0.00	0.00	0.00	0.00	0.00	0.00
		3	36.43	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	37.29	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	13,12	27,40	0,52	7,35	67,46	45,87	0,58
		2	13,12	325,42	65,81	934,47	266,64	1639,81	20,56
		3	13,12	65,54	0,96	13,70	104,33	55,29	0,69
	B1	1	3,00	511,34	34,09	484,07	329,17	592,51	7,43
		2	3,00	74,62	1,45	20,60	111,84	78,28	0,98
	C1	1	8,35	27,33	0,49	7,01	66,80	43,42	0,54
		2	8,35	531,66	125,53	1782,55	342,44	2106,03	26,41
		3	8,35	67,75	1,09	15,50	105,96	61,46	0,77
	D1	1	3,03	67,78	2,11	29,94	107,51	120,41	1,51
		2	3,03	65,96	0,99	14,05	104,64	56,50	0,71

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	Aexit	1	0.00	0.00	51.55	0.00	0.00	120.00	
		2	0.00	0.00	49.42	0.00	0.00	21.00	
		3	0.00	0.00	49.47	0.00	0.00	21.00	
	Bexit	1	0.00	0.00	52.18	0.00	0.00	34.00	
	Cexit	1	0.00	0.00	55.08	0.00	0.00	120.00	
		2	0.00	0.00	52.73	0.00	0.00	20.00	
		3	0.00	0.00	52.80	0.00	0.00	20.00	
	Dexit	1	0.00	0.00	54.04	0.00	0.00	27.00	
	A1	1	0.00	1.56	18.00	8.64	0.00	0.00	
		2	0.00	79.39	18.00	441.05	0.00	0.00	
		3	0.00	1.86	18.00	10.36	0.00	4.00	
	B1	1	0.00	37.34	4.00	933.49	0.00	0.00	
		2	0.00	2.65	4.00	66.21	0.00	0.00	
	C1	1	0.00	1.47	11.00	13.35	0.00	0.00	
		2	0.00	139.11	11.00	1264.66	0.00	0.00	
		3	0.00	2.07	11.00	18.85	0.00	4.00	
	D1	1	0.00	4.07	4.00	101.85	0.00	0.00	
		2	0.00	1.91	4.00	47.64	0.00	4.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
2	04/02/2025 12:23:31	04/02/2025 12:23:31	0.89	17:00	100	3369.43	233.05	138.21	C1/2	3	12	C1/2	Bexit/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	138	-35	4188	1170	3309.25	60.18	3369.43

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4188	3780	404	✓	138	✓	-35	1222

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	20.99	233.05	3309.25	4799.59	60.18

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
17:00-18:00	1264.66	0.00	395.00

A3 - DS 2043 AM
D3 - DS 2043, AM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Stream Flows	Arm Cexit - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream Cexit/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm Aexit - Traffic Stream 1 (Bus) - Flows (08:00-09:00)	Traffic Stream Aexit/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
3	04/02/2025 12:23:32	04/02/2025 12:23:32	0.47	08:00	100	15124.59	1056.88	273.33	A1/2	5	19	A1/2	Bexit/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
DS 2043 AM			✓	D3		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
DS 2043	AM				08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	112	112		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Exclude blocking-back in DoS	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)		100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Cruise time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	Bus	1.00	Default	0.94	30	85

Tram parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
(ALL)		NONE		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID	Allow nearside turn on red
Aexit	1			✓	296.43						Bus		
	2			✓	284.19						Normal		
	3			✓	284.45						Normal		
Bexit	1			✓	300.05						Normal		
Cexit	1			✓	316.73						Bus		
	2			✓	303.20						Normal		
	3			✓	303.59						Normal		
Dexit	1			✓	310.73						Normal		
A1	1				109.30	✓	Sum of lanes	1800	✓		Normal		
	2				109.30	✓	Sum of lanes	1800	✓		Normal		
	3				109.30	✓	Sum of lanes	1800	✓		Normal		
B1	1				25.04	✓	Sum of lanes	1800	✓		Normal		
	2				25.04	✓	Sum of lanes	1800	✓		Normal		
C1	1				69.57	✓	Sum of lanes	1800	✓		Normal		
	2				69.57	✓	Sum of lanes	1800	✓		Normal		
	3				69.57	✓	Sum of lanes	1800	✓		Normal		
D1	1				25.25	✓	Sum of lanes	1800	✓		Normal		
	2				25.25	✓	Sum of lanes	1800	✓		Normal		

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Aexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Bexit	1	1	(untitled)			
Cexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Dexit	1	1	(untitled)			
A1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
B1	1	1	(untitled)			1800
	2	1	(untitled)			1800
C1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
D1	1	1	(untitled)			1800
	2	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Aexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
A1	1	NetworkDefault	100	100	100		18.00		
	2	NetworkDefault	100	100	100		18.00		
	3	NetworkDefault	100	100	100		18.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		11.00		
	2	NetworkDefault	100	100	100		11.00		
	3	NetworkDefault	100	100	100		11.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Bus - Advanced

Arm	Traffic Stream	Dispersion type	Use network default acceleration
(ALL)	1	NetworkDefault	✓

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
Aexit	1	0		0
	2	697	697	
	3	697	697	
Bexit	1	290	290	
Cexit	1	0		0
	2	1136	1136	
	3	1136	1136	
Dexit	1	98	98	
A1	1	81	81	
	2	1640	1640	
	3	28	28	
B1	1	484	484	
	2	76	76	
C1	1	21	21	
	2	1194	1194	
	3	81	81	
D1	1	249	249	
	2	196	196	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
A1	1	1	C		0	0
	2	1	B		0	0
	3	1	A		0	0
B1	1	1	E		0	0
	2	1	D		0	0
C1	1	1	F		0	0
	2	1	G		0	0
	3	1	H		0	0
D1	1	1	I		0	0
	2	1	J		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	24.78	16.52	5.40
2	(untitled)			Signalised		Farside	14.49	9.66	5.40
3	(untitled)			Signalised		Farside	24.82	16.54	5.40
4	(untitled)			Signalised		Farside	14.49	9.66	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	K	
2	1	L	
3	1	M	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

From \ To	1	2	3	4
1	0	128	196	121
2	49	0	435	78
3	21	81	0	1194
4	28	81	1640	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/3, Cexit/2, Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/3, Aexit/2, Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	2		1	2	D1/1, Bexit/1	Normal	128
	3		1	4	D1/1, Aexit/3	Normal	61
	4		1	4	D1/1, Aexit/2	Normal	61
	5		1	3	D1/2, Cexit/3	Normal	98
	6		1	3	D1/2, Cexit/2	Normal	98
	7		2	1	B1/1, Dexit/1	Normal	49
	8		2	3	B1/1, Cexit/2	Normal	218
	9		2	3	B1/1, Cexit/3	Normal	218
	10		2	4	B1/2, Aexit/3	Normal	39
	11		2	4	B1/2, Aexit/2	Normal	39
	16		3	1	C1/1, Dexit/1	Normal	21
	17		3	2	C1/3, Bexit/1	Normal	81
	18		3	4	C1/2, Aexit/2	Normal	597
	19		3	4	C1/2, Aexit/3	Normal	597
	21		4	3	A1/2, Cexit/2	Normal	820
	22		4	3	A1/2, Cexit/3	Normal	820
	23		4	2	A1/1, Bexit/1	Normal	81
	24		4	1	A1/3, Dexit/1	Normal	28

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	36	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	36	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	B, C, F, G	1
	2	A, H	1
	3	E, I	1
	4	D, J	1
	5	K, L, M, N	1

Stage Sequences

Controller stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	60, 73, 91, 103, 116	112	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A				5	5	6	5		6	5	5			8
B				5	5			6	6		5		7	
C				5	5			6	7		5	6	7	
D	5	5	5					5	5		8	5		
E	5	5	5			7	6	6		5		5	7	8
F	6				6				5	5	7		5	6
G	6				6				5	5	8		5	
H		6	6	5	6				5	5		8	5	
I	6	6	7	5		5	5	5			7	8		5
J	5				5	5	5	5					8	5
K	25	25	25	25		25	25		25					
L			15	15	15			15	15					
M		25	25		25	25	25	25		25				
N	15				15	15			15	15				

Interstage Matrix for Controller Stream 1

From \ To	1	2	3	4	5
1	0	6	7	5	8
2	6	0	6	5	8
3	7	6	0	5	8
4	5	5	5	0	8
5	25	25	25	25	0

Resultant Stages

Controller stream	Resultant Stage	Is Base Stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C,F,G	21	60	39	1	36
	2	✓	2	A,H	66	73	7	1	7
	3	✓	3	E,I	79	91	12	1	7
	4	✓	4	D,J	96	103	7	1	7
	5	✓	5	K,L,M,N	111	116	5	1	5

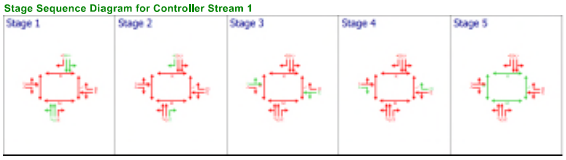
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	66	73	7
	B	1	✓	21	60	39
	C	1	✓	21	60	39
	D	1	✓	96	103	7
	E	1	✓	79	91	12
	F	1	✓	21	60	39
	G	1	✓	21	60	39
	H	1	✓	66	73	7
	I	1	✓	79	91	12
	J	1	✓	96	103	7
	K	1	✓	111	116	5
	L	1	✓	108	116	8
	M	1	✓	111	116	5
	N	1	✓	108	116	8

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1		1	C	21	60	39
A1	2		1	B	21	60	39
A1	3		1	A	66	73	7
B1	1		1	E	79	91	12
B1	2		1	D	96	103	7
C1	1		1	F	21	60	39
C1	2		1	G	21	60	39
C1	3		1	H	66	73	7
D1	1		1	I	79	91	12
D1	2		1	J	96	103	7

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	Aexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	387	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	387	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	0	Unrestricted	262	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	448	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	448	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	0	Unrestricted	69	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	14	567	81	1800	39	28.41	1.88	10.43	9.08	0.70	9.77
		2	273	-67	1640	1800	39	1156.73	540.12	3000.67	7482.75	48.30	7531.05
		3	23	286	28	1800	7	57.68	0.91	5.08	6.37	0.34	6.71
	B1	1	249	-64	485	1800	12	1100.27	151.78	3794.47	2104.88	14.47	2119.35
		2	65	38	78	1800	7	80.97	3.11	77.64	24.91	1.14	26.06
	C1	1	4	2471	21	1800	39	27.11	0.47	4.25	2.25	0.17	2.42
		2	199	-55	1194	1800	39	917.09	317.34	2884.87	4319.20	36.75	4355.95
		3	68	33	81	1800	7	83.92	3.29	29.90	26.81	1.21	28.02
	D1	1	128	-30	250	1800	12	461.04	35.56	889.12	454.64	7.62	462.26
		2	163	-45	196	1800	7	746.11	42.72	1068.04	576.82	6.17	582.99

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	Aexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	387	387	310	✓	Unrestricted	Unrestricted	0		Unrestricted	0.64	120
		3	387	387	310	✓	Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	Bexit	1	262	262	28	✓	Unrestricted	Unrestricted	0		Unrestricted	0.73	120
	Cexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	448	448	688	✓	Unrestricted	Unrestricted	0		Unrestricted	0.52	120
		3	448	448	688	✓	Unrestricted	Unrestricted	0		Unrestricted	0.52	120
	Dexit	1	69	69	29	✓	Unrestricted	Unrestricted	0		Unrestricted	0.77	120
	A1	1	81	81	0		1800	600	14		567	0.00	39
		2	1640	600	0		1800	600	273	✓	-67	0.00	39
		3	28	28	0		1800	120	23		286	0.00	7
	B1	1	485	195	-1		1800	195	249	✓	-64	0.00	12
		2	78	78	0		1800	120	65		38	0.00	7
	C1	1	21	21	0		1800	600	4		2471	0.00	39
		2	1194	600	0		1800	600	199	✓	-55	0.00	39
		3	81	81	0		1800	120	68		33	0.00	7
	D1	1	250	195	-1	✓	1800	195	128	✓	-30	0.00	12
		2	196	120	0		1800	120	163	✓	-45	0.00	7

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	Aexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	34.10	0.00	0.00	0.00	0.00	0.00	0.00
		3	34.13	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	36.01	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	36.38	0.00	0.00	0.00	0.00	0.00	0.00
		3	36.43	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	37.29	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	13.12	28.41	0.64	9.08	68.57	55.54	0.70
		2	13.12	1156.73	526.95	7482.75	641.98	3851.87	48.30
		3	13.12	57.68	0.45	6.37	96.93	27.14	0.34
	B1	1	3.00	1100.27	148.23	2104.88	591.88	1154.17	14.47
		2	3.00	80.97	1.75	24.91	117.00	91.26	1.14
	C1	1	8.35	27.11	0.16	2.25	65.77	13.81	0.17
		2	8.35	917.09	304.17	4319.20	488.52	2931.13	36.75
		3	8.35	83.92	1.89	26.81	119.37	96.69	1.21
	D1	1	3.03	461.94	32.02	454.64	311.73	607.86	7.62
		2	3.03	746.11	40.62	576.82	409.84	491.81	6.17

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	Aexit	1	0.00	0.00	51.55	0.00	0.00	120.00	
		2	0.00	0.00	49.42	0.00	0.00	19.00	
		3	0.00	0.00	49.47	0.00	0.00	19.00	
	Bexit	1	0.00	0.00	52.18	0.00	0.00	24.00	
	Cexit	1	0.00	0.00	55.08	0.00	0.00	120.00	
		2	0.00	0.00	52.73	0.00	0.00	12.00	
		3	0.00	0.00	52.80	0.00	0.00	12.00	
	Dexit	1	0.00	0.00	54.04	0.00	0.00	70.00	
	A1	1	0.00	1.88	18.00	10.43	0.00	0.00	
		2	0.00	540.12	18.00	3000.67	0.00	0.00	
		3	0.00	0.91	18.00	5.08	0.00	6.00	
	B1	1	0.00	151.78	4.00	3794.47	0.00	0.00	
		2	0.00	3.11	4.00	77.64	0.00	0.00	
	C1	1	0.00	0.47	11.00	4.25	0.00	39.00	
		2	0.00	317.34	11.00	2884.87	0.00	0.00	
		3	0.00	3.29	11.00	29.90	0.00	0.00	
	D1	1	0.00	35.56	4.00	889.12	0.00	0.00	
		2	0.00	42.72	4.00	1068.04	0.00	0.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
3	04/02/2025 12:23:32	04/02/2025 12:23:32	0.47	08:00	100	15124.59	1056.88	273.33	A1/2	5	19	A1/2	Bexit/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	273	-67	6053	1168	15007.72	116.88	15124.59

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6053	3998	2051	✓	273	✓	-67	1220

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	17.80	1056.88	15007.72	9321.29	116.88

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
08:00-09:00	3794.47	0.00	441.00

A4 - DS 2043 PM
D4 - DS 2043, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Stream Flows	Arm Cexit - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream Cexit/1 has no paths passing through it, so will not be assigned any flows.
Info	Traffic Stream Flows	Arm Aexit - Traffic Stream 1 (Bus) - Flows (17:00-18:00)	Traffic Stream Aexit/1 has no paths passing through it, so will not be assigned any flows.

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
4	04/02/2025 12:23:32	04/02/2025 12:23:32	0.86	17:00	100	16069.50	1123.37	261.43	B1/1	5	19	B1/1	Bexit/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
DS 2043 PM			✓	D4		✓	

Demand Set Details

Scenario name	Time Period name	Description	Use Relationship	Relationship	Start time (HH:mm)	Locked	Run automatically
DS 2043	PM				17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	113	113		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Exclude blocking-back in DoS	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)		100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Cruise time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	Bus	1.00	Default	0.94	30	85

Tram parameters

Name	Vehicle type	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Link type	Description	Traffic node
(ALL)		NONE		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Zebra crossing ID	Allow nearside turn on red
Aexit	1			✓	296.43						Bus		
	2			✓	284.19						Normal		
	3			✓	284.45						Normal		
Bexit	1			✓	300.05						Normal		
Cexit	1			✓	316.73						Bus		
	2			✓	303.20						Normal		
	3			✓	303.59						Normal		
Dexit	1			✓	310.73						Normal		
A1	1				109.30	✓	Sum of lanes	1800	✓		Normal		
	2				109.30	✓	Sum of lanes	1800	✓		Normal		
	3				109.30	✓	Sum of lanes	1800	✓		Normal		
B1	2				25.04	✓	Sum of lanes	1800	✓		Normal		
C1	1				69.57	✓	Sum of lanes	1800	✓		Normal		
	2				69.57	✓	Sum of lanes	1800	✓		Normal		
	3				69.57	✓	Sum of lanes	1800	✓		Normal		
D1	1				25.25	✓	Sum of lanes	1800	✓		Normal		
	2				25.25	✓	Sum of lanes	1800	✓		Normal		

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Aexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Bexit	1	1	(untitled)			
Cexit	1	1	(untitled)			
	2	1	(untitled)			
	3	1	(untitled)			
Dexit	1	1	(untitled)			
A1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
B1	1	1	(untitled)			1800
	2	1	(untitled)			1800
C1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
D1	1	1	(untitled)			1800
	2	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Aexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
	2	NetworkDefault	100	100	100		0.00		
	3	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
A1	1	NetworkDefault	100	100	100		18.00		
	2	NetworkDefault	100	100	100		18.00		
	3	NetworkDefault	100	100	100		18.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		11.00		
	2	NetworkDefault	100	100	100		11.00		
	3	NetworkDefault	100	100	100		11.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Bus - Modelling

Arm	Traffic Stream	Stationary time (seconds)	Stop weighting (%)	Delay weighting (%)
(ALL)	1	0.00	100	100

Bus - Advanced

Arm	Traffic Stream	Dispersion type	Use network default acceleration
(ALL)	1	NetworkDefault	✓

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)
Aexit	1	0		0
	2	766	766	
	3	766	766	
Bexit	1	249	249	
Cexit	1	0		0
	2	1076	1076	
	3	1076	1076	
Dexit	1	165	165	
A1	1	25	25	
	2	1492	1492	
	3	16	16	
B1	1	549	549	
	2	59	59	
C1	1	20	20	
	2	1414	1414	
	3	88	88	
D1	1	195	195	
	2	239	239	

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Green start adjustment (s)	Green end adjustment (s)
A1	1	1	C		0	0
	2	1	B		0	0
	3	1	A		0	0
B1	1	1	E		0	0
	2	1	D		0	0
C1	1	1	F		0	0
	2	1	G		0	0
	3	1	H		0	0
D1	1	1	I		0	0
	2	1	J		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Crossing type	Allow walk on red	Green man location	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)			Signalised		Farside	24.78	16.52	5.40
2	(untitled)			Signalised		Farside	14.49	9.66	5.40
3	(untitled)			Signalised		Farside	24.82	16.54	5.40
4	(untitled)			Signalised		Farside	14.49	9.66	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	K	
2	1	L	
3	1	M	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	136	239	59
	2	129	0	420	59
	3	20	88	0	1414
	4	16	25	1492	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/3, Cexit/2, Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/3, Aexit/2, Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	2		1	2	D1/1, Bexit/1	Normal	136
	3		1	4	D1/1, Aexit/3	Normal	30
	4		1	4	D1/1, Aexit/2	Normal	30
	5		1	3	D1/2, Cexit/3	Normal	120
	6		1	3	D1/2, Cexit/2	Normal	120
	7		2	1	B1/1, Dexit/1	Normal	129
	8		2	3	B1/1, Cexit/2	Normal	210
	9		2	3	B1/1, Cexit/3	Normal	210
	10		2	4	B1/2, Aexit/3	Normal	30
	11		2	4	B1/2, Aexit/2	Normal	30
	16		3	1	C1/1, Dexit/1	Normal	20
	17		3	2	C1/3, Bexit/1	Normal	88
	18		3	4	C1/2, Aexit/2	Normal	707
	19		3	4	C1/2, Aexit/3	Normal	707
	21		4	3	A1/2, Cexit/2	Normal	746
	22		4	3	A1/2, Cexit/3	Normal	746
	23		4	2	A1/1, Bexit/1	Normal	25
	24		4	1	A1/3, Dexit/1	Normal	16

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	36	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	36	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	M, K, L, N	1
	2	B, C, F, G	1
	3	H, A	1
	4	E, I	1
	5	D, J	1

Losing / Gaining Phase Delays

Controller stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	L	1	2	10
	2	Losing	N	1	2	10
	3	Losing	F	2	3	1
	4	Losing	G	2	3	1
	5	Losing	A	3	4	1

Stage Sequences

Controller stream	Sequence	Name	Description	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)		Single	1, 2, 3, 4, 5	14, 77, 90, 109, 1	113	

Intergreen Matrix for Controller Stream 1

From \ To	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A				5	5	6	5		6	5	5			8
B				5	5			6	6		5		7	
C				5	5			6	7		5	6	7	
D	5	5	5					5	5		8	5		
E	5	5	5			7	6	6		5		5	7	8
F	6				6				5	5	7		5	6
G	6				6				5	5	8		5	
H		6	6	5	6				5	5		8	5	
I	6	6	7	5		5	5	5			7	8		5
J	5				5	5	5	5					8	5
K	25	25	25	25		25	25		25					
L			15	15	15			15	15					
M		25	25		25	25	25	25		25				
N	15				15	15			15	15				

Interstage Matrix for Controller Stream 1

From \ To	1	2	3	4	5
1	0	25	25	25	25
2	8	0	7	7	5
3	8	6	0	7	5
4	8	7	8	0	5
5	8	5	5	5	0

Resultant Stages

Controller stream	Resultant Stage	Is Base Stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	M,K,L,N	9	14	5	1	5
	2	✓	2	B,C,F,G	39	77	38	1	36
	3	✓	3	H,A	84	90	6	1	6
	4	✓	4	E,I	97	109	12	1	7
	5	✓	5	D,J	114	1	7	1	7

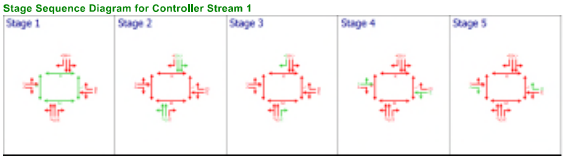
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	84	91	7
	B	1	✓	39	77	38
	C	1	✓	39	77	38
	D	1	✓	114	1	7
	E	1	✓	96	109	13
	F	1	✓	39	78	39
	G	1	✓	39	78	39
	H	1	✓	83	90	7
	I	1	✓	97	109	12
	J	1	✓	114	1	7
	K	1	✓	9	14	5
	L	1	✓	6	24	18
	M	1	✓	9	14	5
	N	1	✓	6	24	18

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
At	1		1	C	39	77	38
At	2		1	B	39	77	38
At	3		1	A	84	91	7
B1	1		1	E	96	109	13
B1	2		1	D	114	1	7
C1	1		1	F	39	78	39
C1	2		1	G	39	78	39
C1	3		1	H	83	90	7
D1	1		1	I	97	109	12
D1	2		1	J	114	1	7

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	Aexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	360	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	360	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	0	Unrestricted	248	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		2	0	Unrestricted	433	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		3	0	Unrestricted	433	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	0	Unrestricted	85	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	At	1	4	2006	25	1800	38	27.90	0.57	3.17	2.75	0.21	2.96
		2	255	-65	1492	1800	38	1110.89	473.16	2628.66	6537.72	44.36	6582.08
		3	13	575	16	1800	7	55.04	0.51	2.85	3.47	0.19	3.66
	B1	1	261	-66	549	1800	13	1133.76	176.75	4418.73	2455.17	16.27	2471.43
		2	50	80	60	1800	7	68.72	2.16	54.02	16.26	0.80	17.07
	C1	1	3	2600	20	1800	39	27.10	0.45	4.05	2.14	0.16	2.30
		2	236	-62	1414	1800	39	1054.12	427.20	3863.64	5879.28	42.51	5921.79
		3	73	23	88	1800	7	92.38	3.77	34.31	32.07	1.38	33.45
	D1	1	101	-10	196	1800	12	177.88	13.23	330.81	137.52	4.40	141.93
		2	209	-55	240	1800	7	935.32	64.45	1611.36	885.44	7.39	892.82

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	Aexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	360	360	406	✓	Unrestricted	Unrestricted	0		Unrestricted	0.73	120
		3	360	360	406	✓	Unrestricted	Unrestricted	0		Unrestricted	0.73	120
	Bexit	1	248	248	1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.95	120
	Cexit	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
		2	433	433	643	✓	Unrestricted	Unrestricted	0		Unrestricted	0.52	120
		3	433	433	643	✓	Unrestricted	Unrestricted	0		Unrestricted	0.52	120
	Dexit	1	85	85	80	✓	Unrestricted	Unrestricted	0		Unrestricted	0.76	120
	At	1	25	25	0		1800	585	4		2006	0.00	38
		2	1492	585	0		1800	585	255	✓	-65	0.00	38
		3	16	16	0		1800	120	13		575	0.00	7
	B1	1	549	210	0		1800	210	261	✓	-66	0.00	13
		2	60	60	-1		1800	120	50		80	0.00	7
	C1	1	20	20	0		1800	600	3		2600	0.00	39
		2	1414	600	0		1800	600	236	✓	-62	0.00	39
		3	88	88	0		1800	120	73		23	0.00	7
	D1	1	196	195	-1		1800	195	101	✓	-10	0.00	12
		2	240	120	-1		1800	120	200	✓	-55	0.00	7

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	Aexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	34.10	0.00	0.00	0.00	0.00	0.00	0.00
		3	34.13	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	36.01	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	36.38	0.00	0.00	0.00	0.00	0.00	0.00
		3	36.43	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	37.29	0.00	0.00	0.00	0.00	0.00	0.00
	At	1	13.12	27.90	0.19	2.75	67.46	16.87	0.21
		2	13.12	1110.89	460.40	6537.72	604.76	3537.86	44.36
		3	13.12	55.04	0.24	3.47	94.48	15.12	0.19
	B1	1	3.00	1133.76	172.90	2455.17	617.81	1297.39	16.27
		2	3.00	68.72	1.15	16.26	106.68	64.01	0.80
	C1	1	8.35	27.10	0.15	2.14	65.77	13.15	0.16
		2	8.35	1054.12	414.03	5879.28	565.07	3390.44	42.51
		3	8.35	92.38	2.26	32.07	125.38	110.34	1.38
	D1	1	3.03	177.88	9.68	137.52	180.12	351.24	4.40
		2	3.03	935.32	62.35	885.44	490.88	589.05	7.39

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	Aexit	1	0.00	0.00	51.55	0.00	0.00	120.00	
		2	0.00	0.00	49.42	0.00	0.00	22.00	
		3	0.00	0.00	49.47	0.00	0.00	22.00	
	Bexit	1	0.00	0.00	52.18	0.00	0.00	47.00	
	Cexit	1	0.00	0.00	55.08	0.00	0.00	120.00	
		2	0.00	0.00	52.73	0.00	0.00	12.00	
		3	0.00	0.00	52.80	0.00	0.00	12.00	
	Dexit	1	0.00	0.00	54.04	0.00	0.00	63.00	
	A1	1	0.00	0.57	18.00	3.17	0.00	37.00	
		2	0.00	473.16	18.00	2628.66	0.00	0.00	
		3	0.00	0.51	18.00	2.85	0.00	7.00	
	B1	1	0.00	176.75	4.00	4418.73	0.00	0.00	
		2	0.00	2.16	4.00	54.02	0.00	0.00	
	C1	1	0.00	0.45	11.00	4.05	0.00	39.00	
		2	0.00	427.20	11.00	3883.64	0.00	0.00	
		3	0.00	3.77	11.00	34.31	0.00	0.00	
	D1	1	0.00	13.23	4.00	330.81	0.00	0.00	
		2	0.00	64.45	4.00	1611.36	0.00	0.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item w wors unsignal PRC
4	04/02/2025 12:23:32	04/02/2025 12:23:32	0.86	17:00	100	16069.50	1123.37	261.43	B1/1	5	19	B1/1	Bexit/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	261	-66	6019	1167	15951.82	117.68	16069.50

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	6019	3838	2175	✓	261	✓	-66	1259

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	17.30	1123.37	15951.82	9385.47	117.68

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
17:00-18:00	4418.73	0.00	501.00