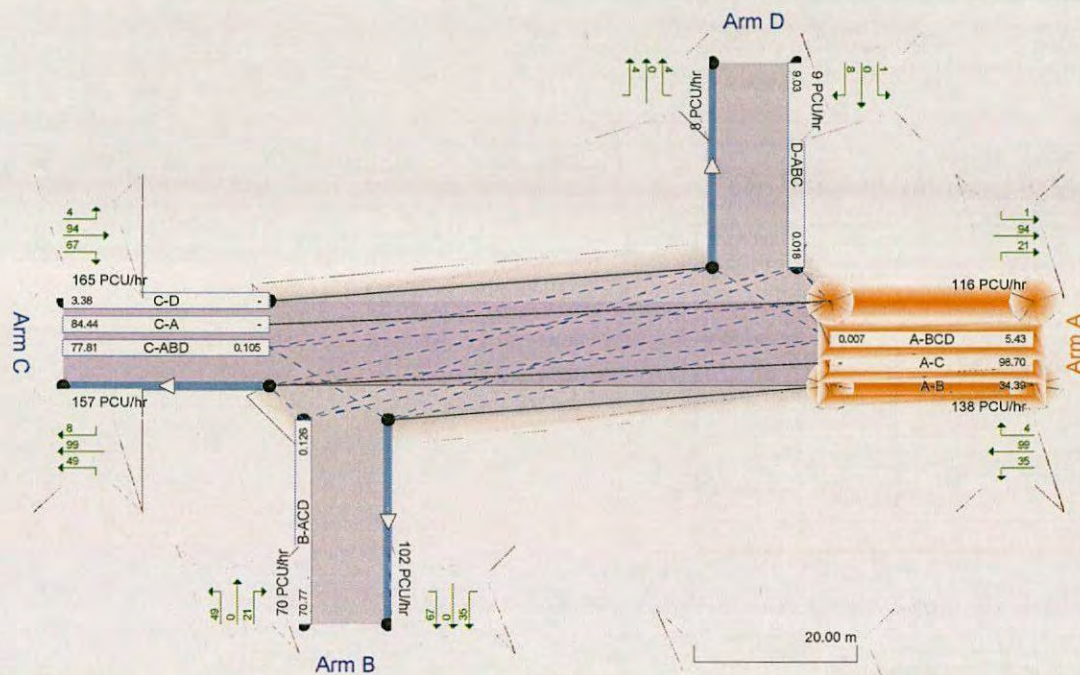




Text overlays show modelled flow through the junction (entry and exit flows, PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()

Time Segment: (16:30-16:45)

Showing Analysis Set "A1 "; Demand Set "D4 - 2018 PM Base, PM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - 2018 PM Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	DemandSets	D1 - 2013 AM Count, AM	Demand Set 1: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D2 - 2013 PM Count, PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D3 - 2018 AM Base, AM	Demand Set 3: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D4 - 2018 PM Base, PM	Demand Set 4: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D5 - 2018 AM Design, AM	Demand Set 5: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D6 - 2018 PM Design, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2018 PM Base, PM	2018 PM Base	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	OS-NS Stagger (UK RL Stagger)	Two-way	A,B,C,D	6.87	A

Junction Network Options

Driving Side	Lighting	Road Surface
Left	Normal/unknown	(Mini-roundabouts only)

Arms

Arms

Arm	Name	Description	Arm Type
A	Doncaster Road (East)		Major
B	Kingsmark Way		Minor
C	Doncaster Road (West)		Major
D	Nora Street		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	8.80	✓	0.00		2.20	250.00	✓	0.00
C	6.95		0.00		2.20	250.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										9	9
D	One lane	3.85										10	9

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	718.741	-	-	-	0.245	0.245	0.245	-	0.245	-	-
1	B-AD	509.333	0.089	0.225	-	-	-	0.141	0.321	0.141	0.089	0.225
1	B-C	661.119	0.097	0.246	-	-	-	-	-	-	0.097	0.246
1	C-B	718.741	0.267	0.267	-	-	-	-	-	-	0.267	0.267
1	D-A	683.181	-	-	-	0.232	0.092	0.232	-	0.092	-	-
1	D-BC	526.675	0.134	0.134	0.304	0.213	0.084	0.213	-	0.084	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	184.00	100.000
B	ONE HOUR	✓	94.00	100.000
C	ONE HOUR	✓	220.00	100.000
D	ONE HOUR	✓	12.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	46.000	132.000	6.000
	B	28.000	0.000	66.000	0.000
	C	125.000	90.000	0.000	5.000
	D	1.000	0.000	11.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.25	0.72	0.03
	B	0.30	0.00	0.70	0.00
	C	0.57	0.41	0.00	0.02
	D	0.08	0.00	0.92	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	D	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.19	8.24	0.24	A
A-BCD	0.01	4.70	0.01	A

A-B	-	-	-	-
A-C	-	-	-	-
D-ABC	0.03	7.83	0.03	A
C-ABD	0.16	5.71	0.23	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.77	70.20	0.00	562.00	0.126	0.14	7.313	A
A-BCD	5.43	5.40	0.00	771.89	0.007	0.01	4.696	A
A-B	34.39	34.39	0.00	-	-	-	-	-
A-C	98.70	98.70	0.00	-	-	-	-	-
D-ABC	9.03	8.96	0.00	493.38	0.018	0.02	7.431	A
C-ABD	77.81	77.27	0.00	741.44	0.105	0.14	5.417	A
C-D	3.38	3.38	0.00	-	-	-	-	-
C-A	84.44	84.44	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	84.50	84.36	0.00	552.88	0.153	0.18	7.681	A
A-BCD	6.73	6.72	0.00	782.45	0.009	0.01	4.640	A
A-B	41.01	41.01	0.00	-	-	-	-	-
A-C	117.68	117.68	0.00	-	-	-	-	-
D-ABC	10.79	10.77	0.00	484.86	0.022	0.02	7.592	A
C-ABD	95.57	95.42	0.00	746.27	0.128	0.17	5.531	A
C-D	3.93	3.93	0.00	-	-	-	-	-
C-A	98.27	98.27	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	103.50	103.27	0.00	540.22	0.192	0.23	8.234	A
A-BCD	8.65	8.64	0.00	797.20	0.011	0.01	4.564	A
A-B	50.12	50.12	0.00	-	-	-	-	-
A-C	143.82	143.82	0.00	-	-	-	-	-
D-ABC	13.21	13.19	0.00	473.12	0.028	0.03	7.827	A
C-ABD	122.40	122.16	0.00	753.59	0.162	0.23	5.702	A
C-D	4.61	4.61	0.00	-	-	-	-	-
C-A	115.22	115.22	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	103.50	103.49	0.00	540.18	0.192	0.24	8.243	A
A-BCD	8.65	8.65	0.00	797.17	0.011	0.01	4.566	A
A-B	50.12	50.12	0.00	-	-	-	-	-
A-C	143.82	143.82	0.00	-	-	-	-	-
D-ABC	13.21	13.21	0.00	473.09	0.028	0.03	7.827	A
C-ABD	122.44	122.43	0.00	753.63	0.162	0.23	5.707	A
C-D	4.61	4.61	0.00	-	-	-	-	-
C-A	115.18	115.18	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	84.50	84.72	0.00	552.82	0.153	0.18	7.694	A
A-BCD	6.73	6.74	0.00	782.41	0.009	0.01	4.642	A
A-B	41.01	41.01	0.00	-	-	-	-	-
A-C	117.68	117.68	0.00	-	-	-	-	-
D-ABC	10.79	10.81	0.00	484.80	0.022	0.02	7.597	A
C-ABD	95.62	95.86	0.00	746.32	0.128	0.18	5.537	A
C-D	3.93	3.93	0.00	-	-	-	-	-
C-A	98.22	98.22	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	70.77	70.92	0.00	561.88	0.126	0.15	7.333	A
A-BCD	5.44	5.45	0.00	771.82	0.007	0.01	4.698	A
A-B	34.39	34.39	0.00	-	-	-	-	-
A-C	98.69	98.69	0.00	-	-	-	-	-
D-ABC	9.03	9.05	0.00	493.30	0.018	0.02	7.436	A
C-ABD	77.90	78.05	0.00	741.48	0.105	0.14	5.428	A
C-D	3.37	3.37	0.00	-	-	-	-	-
C-A	84.35	84.35	0.00	-	-	-	-	-

ARCADY 8

Version: 8.0.0.296 [27 Feb 2012]

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Filename: Kingsmark Way_Doncaster Road_Nora Street.arc8
 Path: O:\Former Goldthorpe Colliery\ANALYSIS\CAPACITY\Priority Junctions
 Report generation date: 28/11/2013 15:25:27

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
A1 - 2018 AM Design				
Stream B-ACD	0.67	10.80	0.40	B
Stream A-BCD	0.00	0.00	0.00	A
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream D-ABC	0.01	6.52	0.01	A
Stream C-ABD	0.11	5.44	0.09	A
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2013 AM Count, AM" model duration: 07:30 - 09:00
 "D2 - 2013 PM Count, PM" model duration: 16:30 - 18:00
 "D3 - 2018 AM Base, AM" model duration: 07:30 - 09:00
 "D4 - 2018 PM Base, PM" model duration: 16:30 - 18:00
 "D5 - 2018 AM Design, AM" model duration: 07:30 - 09:00
 "D6 - 2018 PM Design, PM" model duration: 16:30 - 18:00

Run using ARCADY 8.0.0.296 at 28/11/2013 15:25:24

File summary

File Description

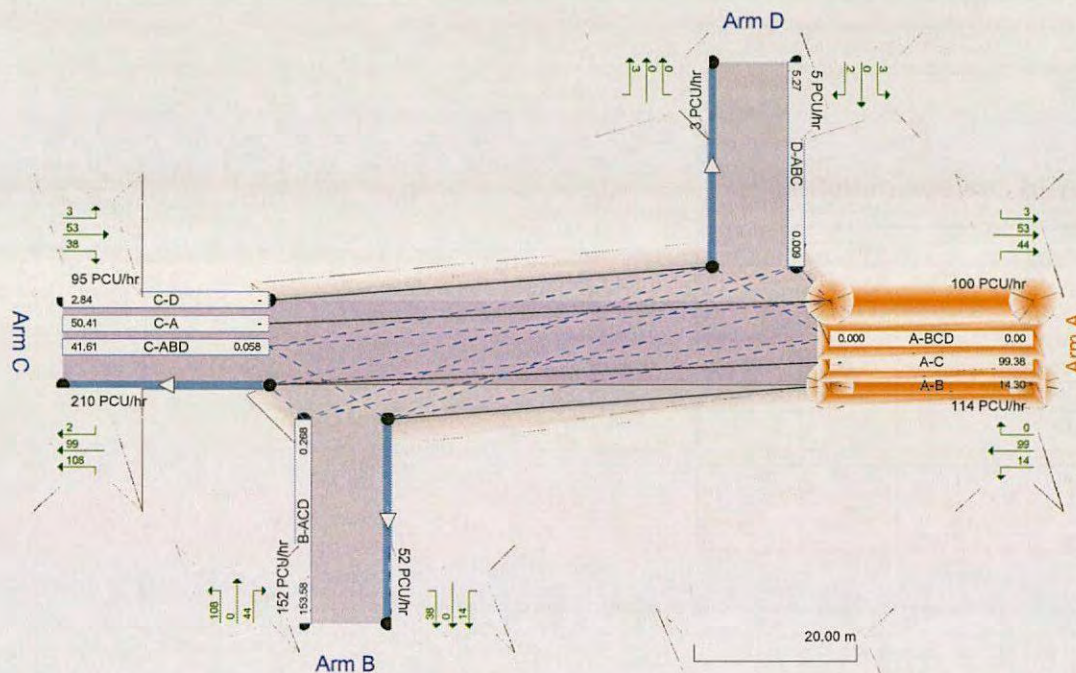
Title	Doncaster Road/Kingsmark Way/Nora Street
Location	Goldthorpe, South Yorkshire
Site Number	
Date	28/11/2013
Version	
Status	(new file)
Identifier	
Client	
Job number	13058
Enumerator	OPTIMA\richard.murphy
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Text overlays show modelled flow through the junction (entry and exit flows, PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()

Time Segment: (07:30-07:45)

Showing Analysis Set "A1 "; Demand Set "D5 - 2018 AM Design, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - 2018 AM Design, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	DemandSets	D1 - 2013 AM Count, AM	Demand Set 1: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D2 - 2013 PM Count, PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D3 - 2018 AM Base, AM	Demand Set 3: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D4 - 2018 PM Base, PM	Demand Set 4: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D5 - 2018 AM Design, AM	Demand Set 5: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D6 - 2018 PM Design, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2018 AM Design, AM	2018 AM Design	AM		ONE HOUR	07:30	09:00	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	OS-NS Stagger (UK RL Stagger)	Two-way	A,B,C,D	9.56	A

Junction Network Options

Driving Side	Lighting	Road Surface
Left	Normal/unknown	(Mini-roundabouts only)

Arms

Arms

Arm	Name	Description	Arm Type
A	Doncaster Road (East)		Major
B	Kingsmark Way		Minor
C	Doncaster Road (West)		Major
D	Nora Street		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	8.80	✓	0.00		2.20	250.00	✓	0.00
C	6.95		0.00		2.20	250.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										9	9
D	One lane	3.85										10	9

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	718.741	-	-	-	0.245	0.245	0.245	-	0.245	-	-
1	B-AD	509.333	0.089	0.225	-	-	-	0.141	0.321	0.141	0.089	0.225
1	B-C	661.119	0.097	0.246	-	-	-	-	-	-	0.097	0.246
1	C-B	718.741	0.267	0.267	-	-	-	-	-	-	0.267	0.267
1	D-A	683.181	-	-	-	0.232	0.092	0.232	-	0.092	-	-
1	D-BC	526.675	0.134	0.134	0.304	0.213	0.084	0.213	-	0.084	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	151.00	100.000
B	ONE HOUR	✓	204.00	100.000
C	ONE HOUR	✓	126.00	100.000
D	ONE HOUR	✓	7.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	19.000	132.000	0.000
	B	59.000	0.000	145.000	0.000
	C	71.000	51.000	0.000	4.000
	D	4.000	0.000	3.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.13	0.87	0.00
	B	0.29	0.00	0.71	0.00
	C	0.56	0.40	0.00	0.03
	D	0.57	0.00	0.43	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	D	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.40	10.80	0.67	B
A-BCD	0.00	0.00	0.00	A

A-B	-	-	-	-
A-C	-	-	-	-
D-ABC	0.01	6.52	0.01	A
C-ABD	0.09	5.44	0.11	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (07:30-07:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	153.58	152.14	0.00	574.10	0.268	0.36	8.503	A
A-BCD	0.00	0.00	0.00	694.07	0.000	0.00	0.000	A
A-B	14.30	14.30	0.00	-	-	-	-	-
A-C	99.38	99.38	0.00	-	-	-	-	-
D-ABC	5.27	5.23	0.00	574.84	0.009	0.01	6.319	A
C-ABD	41.61	41.34	0.00	722.64	0.058	0.07	5.283	A
C-D	2.84	2.84	0.00	-	-	-	-	-
C-A	50.41	50.41	0.00	-	-	-	-	-

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	183.39	182.95	0.00	567.27	0.323	0.47	9.355	A
A-BCD	0.00	0.00	0.00	689.17	0.000	0.00	0.000	A
A-B	17.08	17.08	0.00	-	-	-	-	-
A-C	118.67	118.67	0.00	-	-	-	-	-
D-ABC	6.29	6.29	0.00	568.65	0.011	0.01	6.400	A
C-ABD	50.51	50.44	0.00	723.62	0.070	0.08	5.347	A
C-D	3.35	3.35	0.00	-	-	-	-	-
C-A	59.42	59.42	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	224.61	223.85	0.00	557.82	0.403	0.66	10.754	B
A-BCD	0.00	0.00	0.00	682.52	0.000	0.00	0.000	A
A-B	20.92	20.92	0.00	-	-	-	-	-
A-C	145.33	145.33	0.00	-	-	-	-	-
D-ABC	7.71	7.70	0.00	560.16	0.014	0.01	6.515	A
C-ABD	63.26	63.16	0.00	725.07	0.087	0.11	5.439	A
C-D	4.02	4.02	0.00	-	-	-	-	-
C-A	71.44	71.44	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	224.61	224.58	0.00	557.80	0.403	0.67	10.801	B
A-BCD	0.00	0.00	0.00	682.46	0.000	0.00	0.000	A
A-B	20.92	20.92	0.00	-	-	-	-	-
A-C	145.33	145.33	0.00	-	-	-	-	-
D-ABC	7.71	7.71	0.00	560.10	0.014	0.01	6.516	A
C-ABD	63.27	63.27	0.00	725.08	0.087	0.11	5.442	A
C-D	4.02	4.02	0.00	-	-	-	-	-
C-A	71.43	71.43	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	183.39	184.12	0.00	567.25	0.323	0.48	9.416	A
A-BCD	0.00	0.00	0.00	689.08	0.000	0.00	0.000	A
A-B	17.08	17.08	0.00	-	-	-	-	-
A-C	118.67	118.67	0.00	-	-	-	-	-
D-ABC	6.29	6.30	0.00	568.56	0.011	0.01	6.404	A
C-ABD	50.52	50.62	0.00	723.63	0.070	0.09	5.349	A
C-D	3.35	3.35	0.00	-	-	-	-	-
C-A	59.40	59.40	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	153.58	154.04	0.00	574.05	0.268	0.37	8.582	A
A-BCD	0.00	0.00	0.00	693.92	0.000	0.00	0.000	A
A-B	14.30	14.30	0.00	-	-	-	-	-
A-C	99.38	99.38	0.00	-	-	-	-	-
D-ABC	5.27	5.28	0.00	574.71	0.009	0.01	6.321	A
C-ABD	41.63	41.70	0.00	722.66	0.058	0.07	5.287	A
C-D	2.84	2.84	0.00	-	-	-	-	-
C-A	50.39	50.39	0.00	-	-	-	-	-

ARCADY 8

Version: 8.0.0.296 [27 Feb 2012]

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Filename: Kingsmark Way_Doncaster Road_Nora Street.arc8
Path: O:\Former Goldthorpe Colliery\ANALYSIS\CAPACITY\Priority Junctions
Report generation date: 28/11/2013 15:25:58

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
A1 - 2018 PM Design				
Stream B-ACD	0.34	9.03	0.25	A
Stream A-BCD	0.01	4.67	0.01	A
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream D-ABC	0.03	7.89	0.03	A
Stream C-ABD	0.34	6.18	0.22	A
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2013 AM Count, AM" model duration: 07:30 - 09:00
 "D2 - 2013 PM Count, PM" model duration: 16:30 - 18:00
 "D3 - 2018 AM Base, AM" model duration: 07:30 - 09:00
 "D4 - 2018 PM Base, PM" model duration: 16:30 - 18:00
 "D5 - 2018 AM Design, AM" model duration: 07:30 - 09:00
 "D6 - 2018 PM Design, PM" model duration: 16:30 - 18:00

Run using ARCADY 8.0.0.296 at 28/11/2013 15:25:55

File summary

File Description

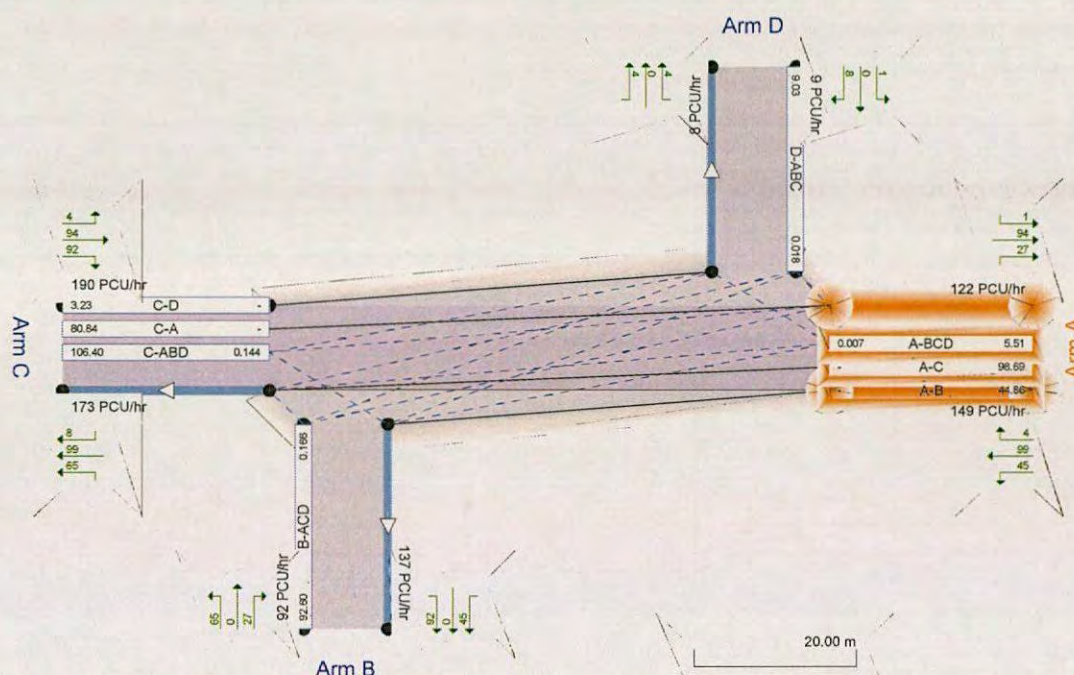
Title	Doncaster Road/Kingsmark Way/Nora Street
Location	Goldthorpe, South Yorkshire
Site Number	
Date	28/11/2013
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	13058
Enumerator	OPTIMA\richard.murphy
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - 2018 PM Design, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	DemandSets	D1 - 2013 AM Count, AM	Demand Set 1: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D2 - 2013 PM Count, PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D3 - 2018 AM Base, AM	Demand Set 3: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D4 - 2018 PM Base, PM	Demand Set 4: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	DemandSets	D5 - 2018 AM Design, AM	Demand Set 5: Scenario Name includes Time Period Name ('AM'). Are you sure this is correct?
Warning	DemandSets	D6 - 2018 PM Design, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2018 PM Design, PM	2018 PM Design	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	OS-NS Stagger (UK RL Stagger)	Two-way	A,B,C,D	7.42	A

Junction Network Options

Driving Side	Lighting	Road Surface
Left	Normal/unknown	(Mini-roundabouts only)

Arms

Arms

Arm	Name	Description	Arm Type
A	Doncaster Road (East)		Major
B	Kingsmark Way		Minor
C	Doncaster Road (West)		Major
D	Nora Street		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	8.80	✓	0.00		2.20	250.00	✓	0.00
C	6.95		0.00		2.20	250.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										9	9
D	One lane	3.85										10	9

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	718.741	-	-	-	0.245	0.245	0.245	-	0.245	-	-
1	B-AD	509.333	0.089	0.225	-	-	-	0.141	0.321	0.141	0.089	0.225
1	B-C	661.119	0.097	0.246	-	-	-	-	-	-	0.097	0.246
1	C-B	718.741	0.267	0.267	-	-	-	-	-	-	0.267	0.267
1	D-A	683.181	-	-	-	0.232	0.092	0.232	-	0.092	-	-
1	D-BC	526.675	0.134	0.134	0.304	0.213	0.084	0.213	-	0.084	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	198.00	100.000
B	ONE HOUR	✓	123.00	100.000
C	ONE HOUR	✓	253.00	100.000
D	ONE HOUR	✓	12.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

	To			
	A	B	C	D
From	A	0.000	60.000	132.000
	B	36.000	0.000	87.000
	C	125.000	123.000	0.000
	D	1.000	0.000	11.000

Turning Proportions (PCU) - Junction 1 (for whole period)

	To			
	A	B	C	D
From	A	0.00	0.30	0.67
	B	0.29	0.00	0.71
	C	0.49	0.49	0.00
	D	0.08	0.00	0.92

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To			
	A	B	C	D
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000
	D	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
	A	B	C	D
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000
	D	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.25	9.03	0.34	A
A-BCD	0.01	4.67	0.01	A

A-B	-	-	-	-
A-C	-	-	-	-
D-ABC	0.03	7.89	0.03	A
C-ABD	0.22	6.18	0.34	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	92.60	91.81	0.00	558.31	0.166	0.20	7.704	A
A-BCD	5.51	5.48	0.00	776.93	0.007	0.01	4.666	A
A-B	44.86	44.86	0.00	-	-	-	-	-
A-C	98.69	98.69	0.00	-	-	-	-	-
D-ABC	9.03	8.96	0.00	490.73	0.018	0.02	7.472	A
C-ABD	106.40	105.63	0.00	738.78	0.144	0.19	5.681	A
C-D	3.23	3.23	0.00	-	-	-	-	-
C-A	80.84	80.84	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.57	110.36	0.00	548.15	0.202	0.25	8.218	A
A-BCD	6.84	6.83	0.00	788.47	0.009	0.01	4.605	A
A-B	53.49	53.49	0.00	-	-	-	-	-
A-C	117.67	117.67	0.00	-	-	-	-	-
D-ABC	10.79	10.77	0.00	481.67	0.022	0.02	7.644	A
C-ABD	131.29	131.06	0.00	743.41	0.177	0.25	5.880	A
C-D	3.70	3.70	0.00	-	-	-	-	-
C-A	92.46	92.46	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	135.43	135.08	0.00	534.01	0.254	0.34	9.017	A
A-BCD	8.82	8.81	0.00	804.57	0.011	0.01	4.523	A
A-B	65.37	65.37	0.00	-	-	-	-	-
A-C	143.81	143.81	0.00	-	-	-	-	-
D-ABC	13.21	13.19	0.00	469.21	0.028	0.03	7.894	A
C-ABD	167.48	167.12	0.00	749.83	0.223	0.34	6.178	A
C-D	4.27	4.27	0.00	-	-	-	-	-
C-A	106.80	106.80	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	135.43	135.42	0.00	533.95	0.254	0.34	9.032	A
A-BCD	8.83	8.82	0.00	804.53	0.011	0.01	4.523	A
A-B	65.37	65.37	0.00	-	-	-	-	-
A-C	143.81	143.81	0.00	-	-	-	-	-
D-ABC	13.21	13.21	0.00	469.17	0.028	0.03	7.895	A
C-ABD	167.55	167.54	0.00	749.89	0.223	0.34	6.185	A
C-D	4.27	4.27	0.00	-	-	-	-	-
C-A	106.74	106.74	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.57	110.90	0.00	548.06	0.202	0.26	8.241	A
A-BCD	6.84	6.85	0.00	788.40	0.009	0.01	4.607	A
A-B	53.49	53.49	0.00	-	-	-	-	-
A-C	117.67	117.67	0.00	-	-	-	-	-
D-ABC	10.79	10.81	0.00	481.60	0.022	0.02	7.646	A
C-ABD	131.37	131.72	0.00	743.50	0.177	0.25	5.892	A
C-D	3.70	3.70	0.00	-	-	-	-	-
C-A	92.38	92.38	0.00	-	-	-	-	-

Main results: (17:45-18:00)

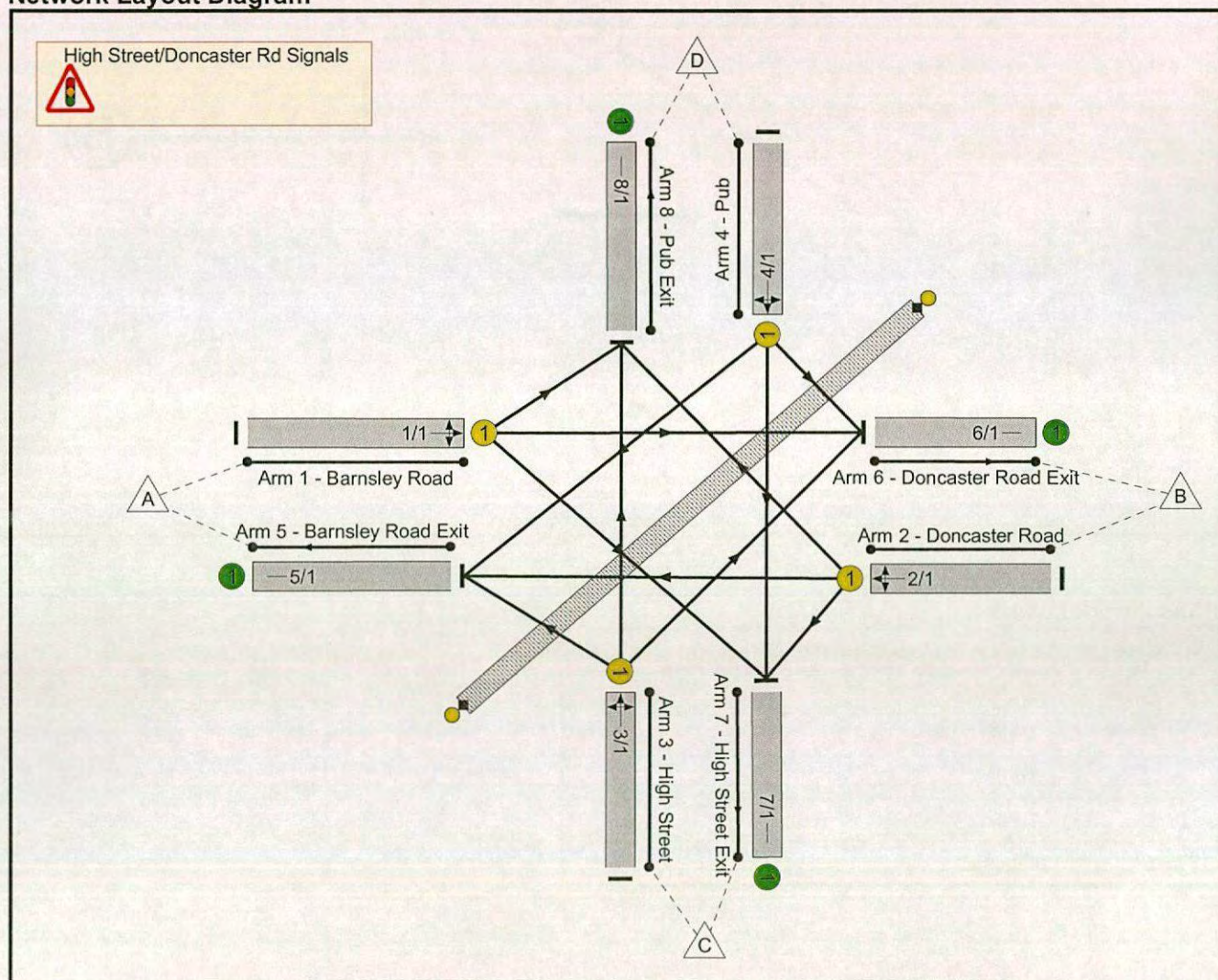
Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	92.60	92.82	0.00	558.14	0.166	0.20	7.740	A
A-BCD	5.52	5.52	0.00	776.83	0.007	0.01	4.658	A
A-B	44.86	44.86	0.00	-	-	-	-	-
A-C	98.69	98.69	0.00	-	-	-	-	-
D-ABC	9.03	9.05	0.00	490.63	0.018	0.02	7.477	A
C-ABD	106.53	106.76	0.00	738.85	0.144	0.19	5.700	A
C-D	3.23	3.23	0.00	-	-	-	-	-
C-A	80.72	80.72	0.00	-	-	-	-	-

Full Input Data And Results
Full Input Data And Results

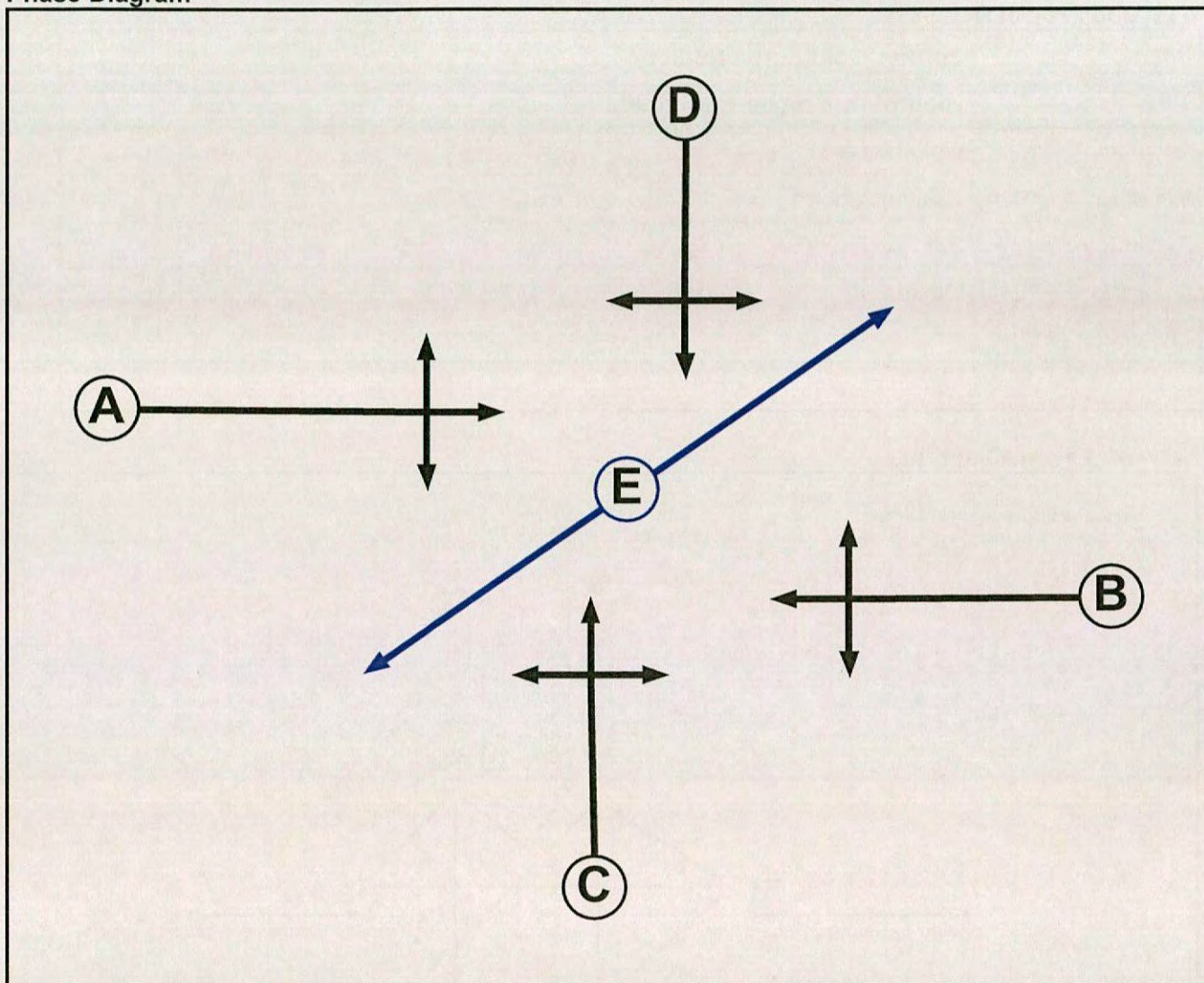
User and Project Details

Project:	Former Goldthorpe Colliery
Title:	High St/Doncaster Rd Signals
Location:	Goldthorpe
File name:	Existing.lsg3x
Author:	SJP
Company:	Optima
Address:	
Notes:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		9	9

Full Input Data And Results

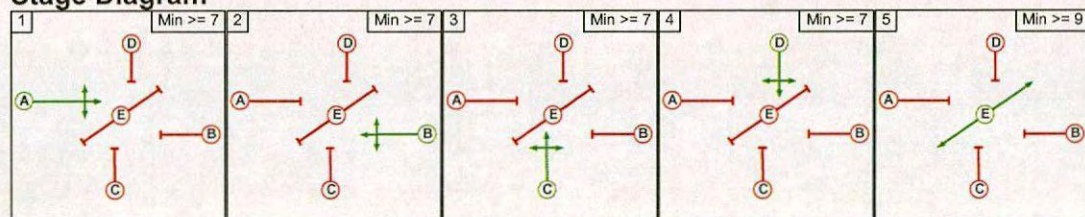
Phase Intergreens Matrix

	Starting Phase					
Terminating Phase		A	B	C	D	E
	A		6	6	5	9
	B	6		6	7	8
	C	6	6		5	8
	D	5	5	6		8
	E	9	9	9	9	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B
3	C
4	D
5	E

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage				
	1	2	3	4	5
	1	6	6	5	9
	2	6	6	7	8
	3	6	6	5	8
	4	5	5	6	8
	5	9	9	9	9

Full Input Data And Results

Give-Way Lane Input Data

Junction: High Street/Doncaster Rd Signals
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: High Street/Doncaster Rd Signals												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Barnsley Road)	U	A	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Right	15.00
											Arm 8 Left	Inf
2/1 (Doncaster Road)	U	B	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 5 Ahead	Inf
											Arm 7 Left	15.00
											Arm 8 Right	Inf
3/1 (High Street)	U	C	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 5 Left	11.00
											Arm 6 Right	15.00
											Arm 8 Ahead	Inf
4/1 (Pub)	U	D	2	3	60.0	User	1800	-	-	-	-	-
5/1 (Barnsley Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Doncaster Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (High Street Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Pub Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM COUNT'	07:45	08:45	01:00	
2: 'PM COUNT'	16:45	17:45	01:00	
3: '2018 AM BASE'	07:45	08:45	01:00	
4: '2018 PM BASE'	16:45	17:45	01:00	
5: '2018 AM DESIGN'	07:45	08:45	01:00	
6: '2018 PM DESIGN'	16:45	17:45	01:00	

Full Input Data And Results

Scenario 1: 'AM COUNT' (FG1: 'AM COUNT', Plan 1: 'AM PEAK')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	68	305	0	373
	B	67	0	135	0	202
	C	74	93	0	0	167
	D	0	0	0	0	0
	Tot.	141	161	440	0	742

Traffic Lane Flows

Lane	Scenario 1: AM COUNT
Junction: High Street/Doncaster Rd Signals	
1/1	373
2/1	202
3/1	167
4/1	0
5/1	141
6/1	161
7/1	440
8/1	0

Full Input Data And Results

Lane Saturation Flows

Junction: High Street/Doncaster Rd Signals.								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Barnsley Road)	4.00	0.00	Y	Arm 6 Ahead	Inf	18.2 %	1863	1863
				Arm 7 Right	15.00	81.8 %		
				Arm 8 Left	Inf	0.0 %		
2/1 (Doncaster Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	33.2 %	1804	1804
				Arm 7 Left	15.00	66.8 %		
				Arm 8 Right	Inf	0.0 %		
3/1 (High Street)	4.00	0.00	Y	Arm 5 Left	11.00	44.3 %	1805	1805
				Arm 6 Right	15.00	55.7 %		
				Arm 8 Ahead	Inf	0.0 %		
4/1 (Pub Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Barnsley Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Doncaster Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf.	Inf
8/1 (Pub Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'PM COUNT' (FG2: 'PM COUNT', Plan 2: 'PM PEAK')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	91	287	0	378
	B	96	0	186	0	282
	C	113	163	0	0	276
	D	0	0	0	0	0
	Tot.	209	254	473	0	936

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: PM COUNT
Junction: High Street/Doncaster Rd Signals	
1/1	378
2/1	282
3/1	276
4/1	0
5/1	209
6/1	254
7/1	473
8/1	0

Lane Saturation Flows

Junction: High Street/Doncaster Rd Signals								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Barnsley Road)	4.00	0.00	Y	Arm 6 Ahead	Inf	24.1 %	1873	1873
				Arm 7 Right	15.00	75.9 %		
				Arm 8 Left	Inf	0.0 %		
2/1 (Doncaster Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	34.0 %	1806	1806
				Arm 7 Left	15.00	66.0 %		
				Arm 8 Right	Inf	0.0 %		
3/1 (High Street)	4.00	0.00	Y	Arm 5 Left	11.00	40.9 %	1807	1807
				Arm 6 Right	15.00	59.1 %		
				Arm 8 Ahead	Inf	0.0 %		
4/1 (Pub Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Barnsley Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Doncaster Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Pub Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2018 AM BASE' (FG3: '2018 AM BASE', Plan 1: 'AM PEAK')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	84	327	0	411
	B	101	0	166	0	267
	C	80	108	0	0	188
	D	0	0	0	0	0
	Tot.	181	192	493	0	866

Traffic Lane Flows

Lane	Scenario 3: 2018 AM BASE
Junction: High Street/Doncaster Rd Signals	
1/1	411
2/1	267
3/1	188
4/1	0
5/1	181
6/1	192
7/1	493
8/1	0

Lane Saturation Flows

Junction: High Street/Doncaster Rd Signals								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Barnsley Road)	4.00	0.00	Y	Arm 6 Ahead	Inf	20.4 %	1866	1866
				Arm 7 Right	15.00	79.6 %		
				Arm 8 Left	Inf	0.0 %		
2/1 (Doncaster Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	37.8 %	1812	1812
				Arm 7 Left	15.00	62.2 %		
				Arm 8 Right	Inf	0.0 %		
3/1 (High Street)	4.00	0.00	Y	Arm 5 Left	11.00	42.6 %	1806	1806
				Arm 6 Right	15.00	57.4 %		
				Arm 8 Ahead	Inf	0.0 %		
4/1 (Pub Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Barnsley Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Doncaster Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Pub Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2018 PM BASE' (FG4: '2018 PM BASE', Plan 2: 'PM PEAK')

Traffic Flows, Desired

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	125	309	0	434
	B	120	0	213	0	333
	C	122	195	0	0	317
	D	0	0	0	0	0
	Tot.	242	320	522	0	1084

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2018 PM BASE
Junction: High Street/Doncaster Rd Signals	
1/1	434
2/1	333
3/1	317
4/1	0
5/1	242
6/1	320
7/1	522
8/1	0

Lane Saturation Flows

Junction: High Street/Doncaster Rd Signals								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Barnsley Road)	4.00	0.00	Y	Arm 6 Ahead	Inf	28.8 %	1881	1881
				Arm 7 Right	15.00	71.2 %		
				Arm 8 Left	Inf	0.0 %		
2/1 (Doncaster Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	36.0 %	1809	1809
				Arm 7 Left	15.00	64.0 %		
				Arm 8 Right	Inf	0.0 %		
3/1 (High Street)	4.00	0.00	Y	Arm 5 Left	11.00	38.5 %	1809	1809
				Arm 6 Right	15.00	61.5 %		
				Arm 8 Ahead	Inf	0.0 %		
4/1 (Pub Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Barnsley Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Doncaster Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Pub Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2018 AM DESIGN' (FG5: '2018 AM DESIGN', Plan 1: 'AM PEAK')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	92	327	0	419
	B	122	0	181	0	303
	C	80	113	0	0	193
	D	0	0	0	0	0
	Tot.	202	205	508	0	915

Traffic Lane Flows

Lane	Scenario 5: 2018 AM DESIGN
Junction: High Street/Doncaster Rd Signals	
1/1	419
2/1	303
3/1	193
4/1	0
5/1	202
6/1	205
7/1	508
8/1	0

Full Input Data And Results

Lane Saturation Flows

Junction: High Street/Doncaster Rd Signals								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop:	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Barnsley Road)	4.00	0.00	Y	Arm 6 Ahead	Inf	22.0 %	1869	1869
				Arm 7 Right	15.00	78.0 %		
				Arm 8 Left	Inf	0.0 %		
2/1 (Doncaster Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	40.3 %	1816	1816
				Arm 7 Left	15.00	59.7 %		
				Arm 8 Right	Inf	0.0 %		
3/1 (High Street)	4.00	0.00	Y	Arm 5 Left	11.00	41.5 %	1807	1807
				Arm 6 Right	15.00	58.5 %		
				Arm 8 Ahead	Inf	0.0 %		
4/1 (Pub Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Barnsley Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Doncaster Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Pub Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2018 PM DESIGN' (FG6: '2018 PM DESIGN', Plan 2: 'PM PEAK')

Traffic Flows, Desired

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	144	309	0	453
	B	132	0	221	0	353
	C	122	209	0	0	331
	D	0	0	0	0	0
	Tot.	254	353	530	0	1137

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2018 PM DESIGN
Junction: High Street/Doncaster Rd Signals	
1/1	453
2/1	353
3/1	331
4/1	0
5/1	254
6/1	353
7/1	530
8/1	0

Lane Saturation Flows

Junction: High Street/Doncaster Rd. Signals								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Barnsley Road)	4.00	0.00	Y	Arm 6 Ahead	Inf	31.8 %	1886	1886
				Arm 7 Right	15.00	68.2 %		
				Arm 8 Left	Inf	0.0 %		
2/1 (Doncaster Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	37.4 %	1812	1812
				Arm 7 Left	15.00	62.6 %		
				Arm 8 Right	Inf	0.0 %		
3/1 (High Street)	4.00	0.00	Y	Arm 5 Left	11.00	36.9 %	1810	1810
				Arm 6 Right	15.00	63.1 %		
				Arm 8 Ahead	Inf	0.0 %		
4/1 (Pub Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Barnsley Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Doncaster Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Pub Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '2018 PM DESIGN - Extended' (FG6: '2018 PM DESIGN', Plan 2: 'PM PEAK')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	144	309	0	453
	B	132	0	221	0	353
	C	122	209	0	0	331
	D	0	0	0	0	0
	Tot.	254	353	530	0	1137

Traffic Lane Flows

Lane	Scenario 7: 2018 PM DESIGN - Extended
Junction: High Street/Doncaster Rd Signals	
1/1	453
2/1	353
3/1	331
4/1	0
5/1	254
6/1	353
7/1	530
8/1	0

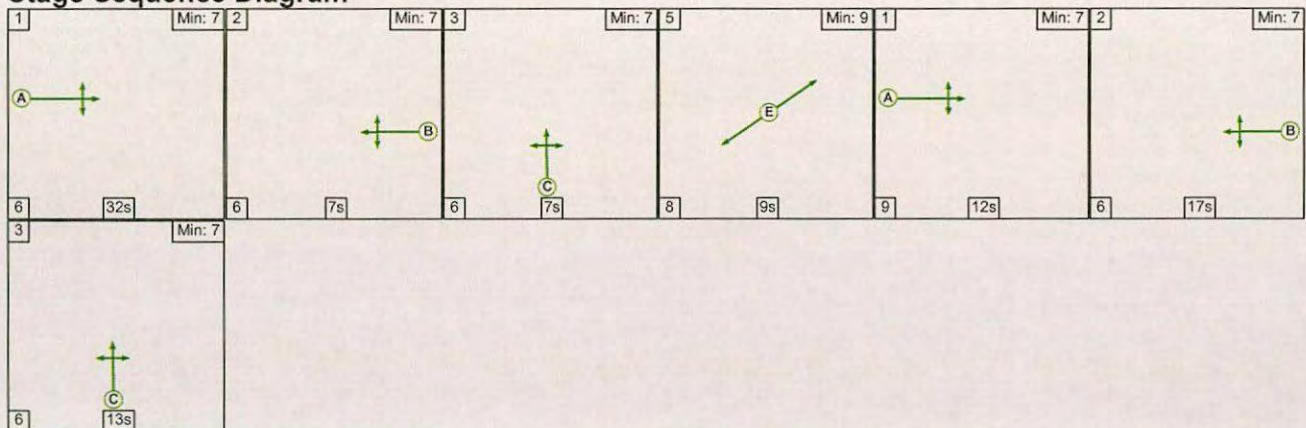
Full Input Data And Results

Lane Saturation Flows

Junction: High Street/Doncaster Rd Signals								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Barnsley Road)	4.00	0.00	Y	Arm 6 Ahead	Inf	31.8 %	1886	1886
				Arm 7 Right	15.00	68.2 %		
				Arm 8 Left	Inf	0.0 %		
2/1 (Doncaster Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	37.4 %	1812	1812
				Arm 7 Left	15.00	62.6 %		
				Arm 8 Right	Inf	0.0 %		
3/1 (High Street)	4.00	0.00	Y	Arm 5 Left	11.00	36.9 %	1810	1810
				Arm 6 Right	15.00	63.1 %		
				Arm 8 Ahead	Inf	0.0 %		
4/1 (Pub Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Barnsley Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Doncaster Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Pub Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'AM COUNT' (FG1: 'AM COUNT', Plan 1: 'AM PEAK')

Stage Sequence Diagram

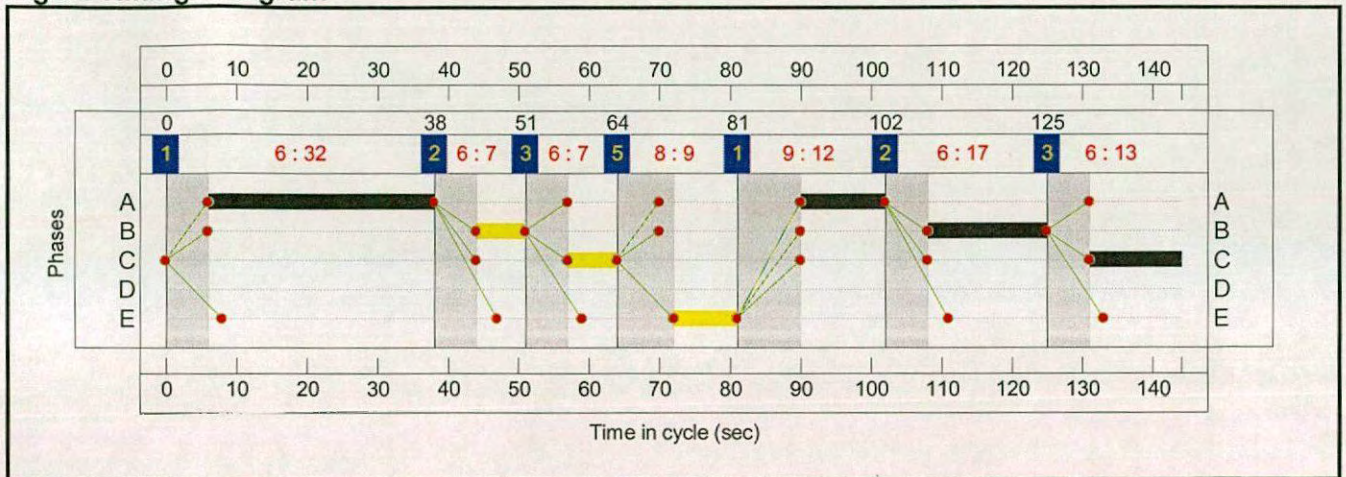


Stage Timings

Stage	1	2	3	5	1	2	3
Duration	32	7	7	9	12	17	13
Change Point	0	38	51	64	81	102	125

Full Input Data And Results

Signal Timings Diagram



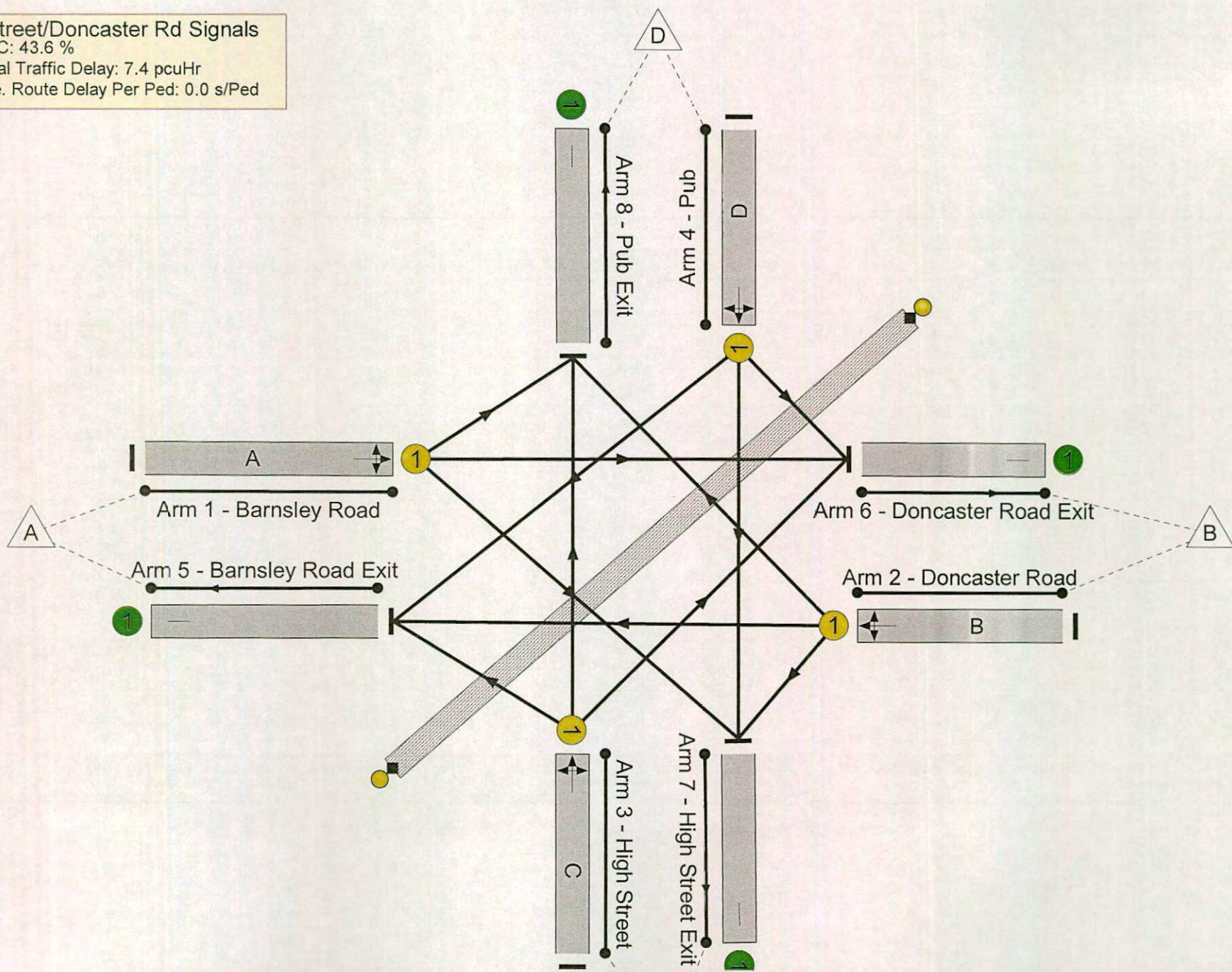
Full Input Data And Results

High Street/Doncaster Rd Signals

PRC: 43.6 %

Total Traffic Delay: 7.4 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: High St/Doncaster Rd Signals	-	-	N/A	-	-		-	-	-	-	-	-	62.7%
High Street/Doncaster Rd Signals		-	N/A	-	-		-	-	-	-	-	-	62.7%
1/1	Barnsley Road Ahead Right Left	U	N/A	N/A	A		2	44	-	373	1863	595	62.7%
2/1	Doncaster Road Ahead Left Right	U	N/A	N/A	B		2	24	-	202	1804	326	62.0%
3/1	High Street Left Right Ahead	U	N/A	N/A	C		2	20	-	167	1805	276	60.6%
4/1	Pub Right Left Ahead	U	N/A	N/A	D		0	0	-	0	1800	0	0.0%
5/1	Barnsley Road Exit	U	N/A	N/A	-		-	-	-	141	Inf	Inf	0.0%
6/1	Doncaster Road Exit	U	N/A	N/A	-		-	-	-	161	Inf	Inf	0.0%
7/1	High Street Exit	U	N/A	N/A	-		-	-	-	440	Inf	Inf	0.0%
8/1	Pub Exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Ped All Red	-	N/A	-	E		1	9	-	0	-	0	0.0%

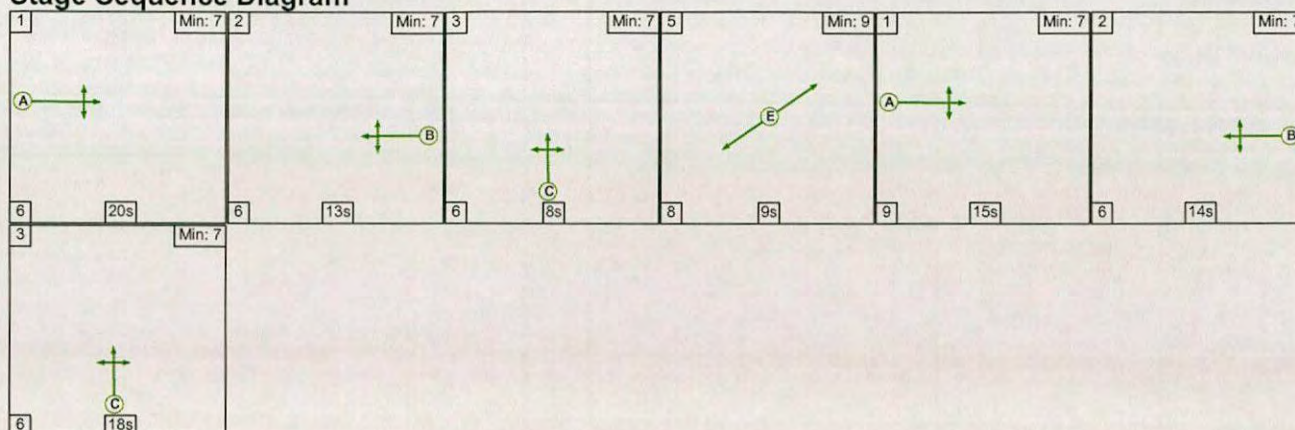
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: High St/Doncaster Rd Signals	-	-	0	0	0	5.0	2.4	0.0	7.4	-	-	-	-
High Street/Doncaster Rd Signals	-	-	0	0	0	5.0	2.4	0.0	7.4	-	-	-	-
1/1	373	373	-	-	-	2.2	0.8	-	3.0	28.9	6.5	0.8	7.4
2/1	202	202	-	-	-	1.5	0.8	-	2.3	41.7	3.9	0.8	4.7
3/1	167	167	-	-	-	1.3	0.8	-	2.1	45.0	3.3	0.8	4.1
4/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	141	141	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	161	161	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	440	440	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Pec Link P1	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		43.6	Total Delay for Signalled Lanes (pcuHr):		7.42	Cycle Time (s): 144				
			PRC Over All Lanes (%):		43.6	Total Delay Over All Lanes(pcuHr):		7.42					

Full Input Data And Results

Scenario 2: 'PM COUNT' (FG2: 'PM COUNT', Plan 2: 'PM PEAK')

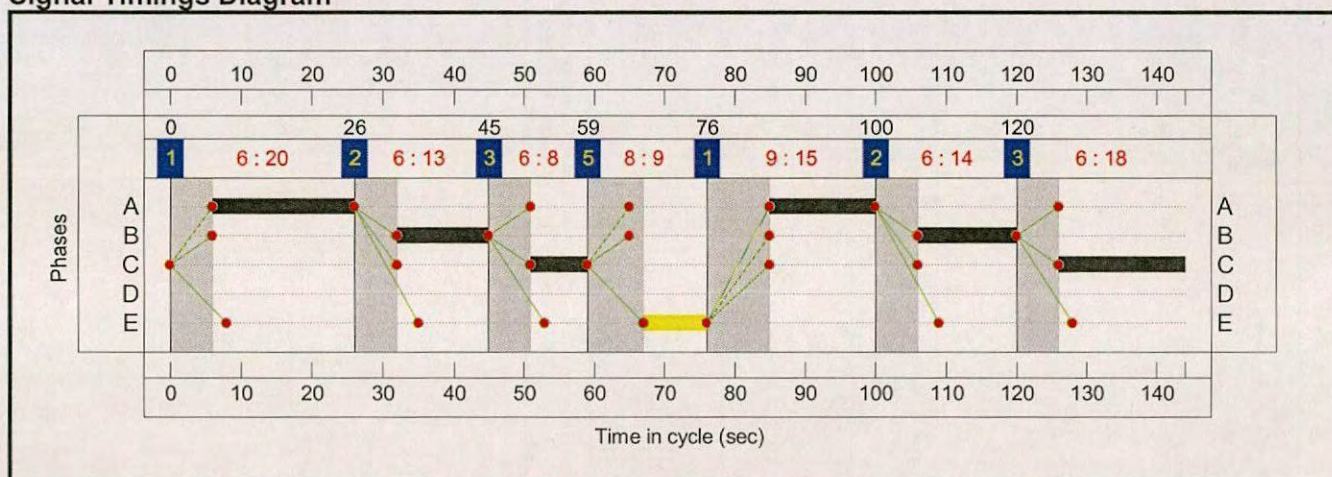
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	5	1	2	3
Duration	20	13	8	9	15	14	18
Change Point	0	26	45	59	76	100	120

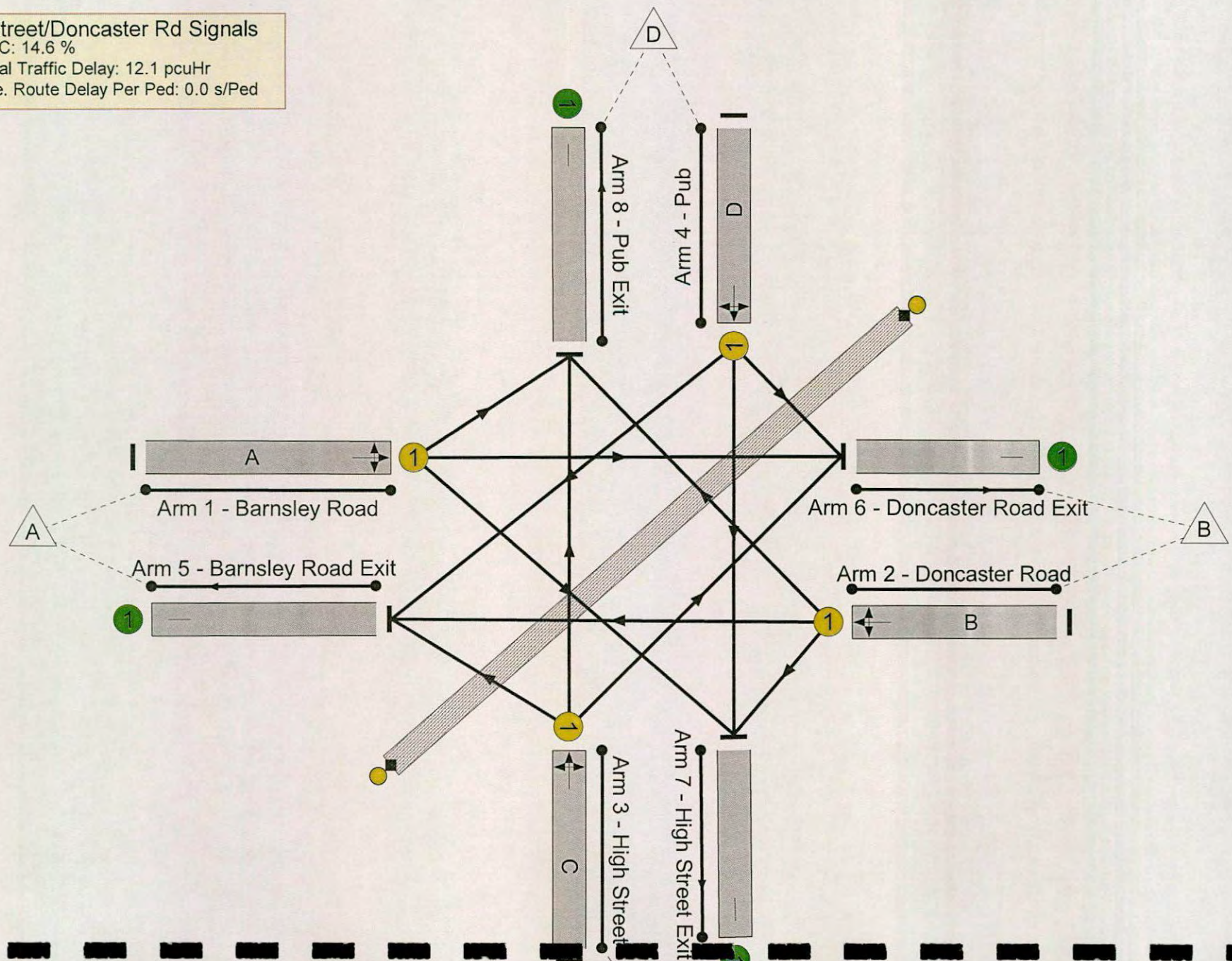
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

High Street/Doncaster Rd Signals
 PRC: 14.6 %
 Total Traffic Delay: 12.1 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num. Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: High St/Doncaster Rd Signals	-	-	N/A	-	-		-	-	-	-	-	-	78.6%
High Street/Doncaster Rd Signals			N/A									-	78.6%
1/1	Barnsley Road Ahead Right Left	U	N/A	N/A	A		2	35	-	378	1873	481	78.5%
2/1	Doncaster Road Ahead Left Right	U	N/A	N/A	B		2	27		282	1806	364	77.5%
3/1	High Street Left Right Ahead	U	N/A	N/A	C		2	26	-	276	1807	351	78.6%
4/1	Pub Right Left Ahead	U	N/A	N/A	D		0	0	-	0	1800	0	0.0%
5/1	Barnsley Road Exit	U	N/A	N/A	-		-	-	-	209	Inf	Inf	0.0%
6/1	Doncaster Road Exit	U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
7/1	High Street Exit	U	N/A	N/A	-		-	-	-	473	Inf	Inf	0.0%
8/1	Pub Exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Ped All Red	-	N/A	-	E		1	9	-	0	-	0	0.0%

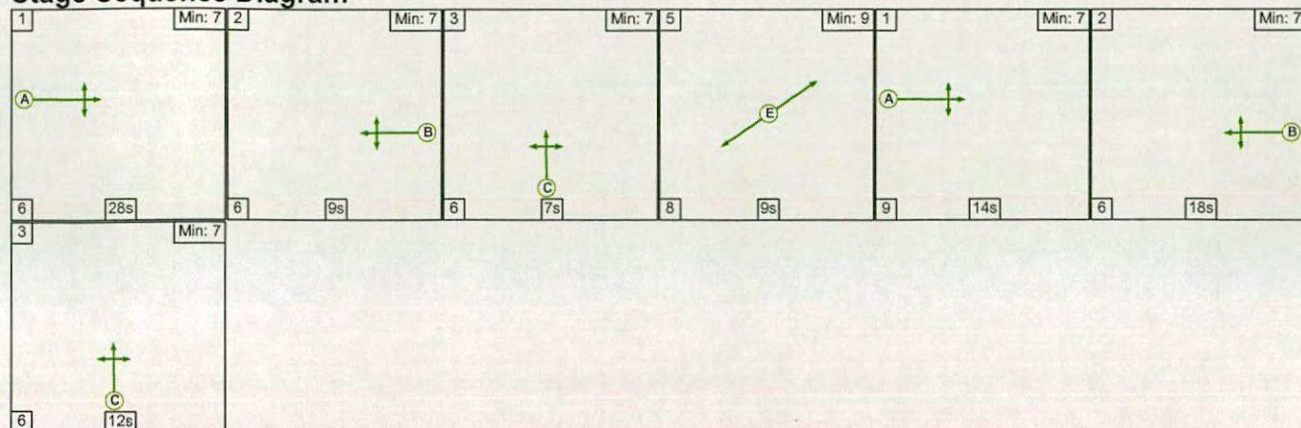
Full Input Data And Results

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Full Input Data And Results

Scenario 3: '2018 AM BASE' (FG3: '2018 AM BASE', Plan 1: 'AM PEAK')

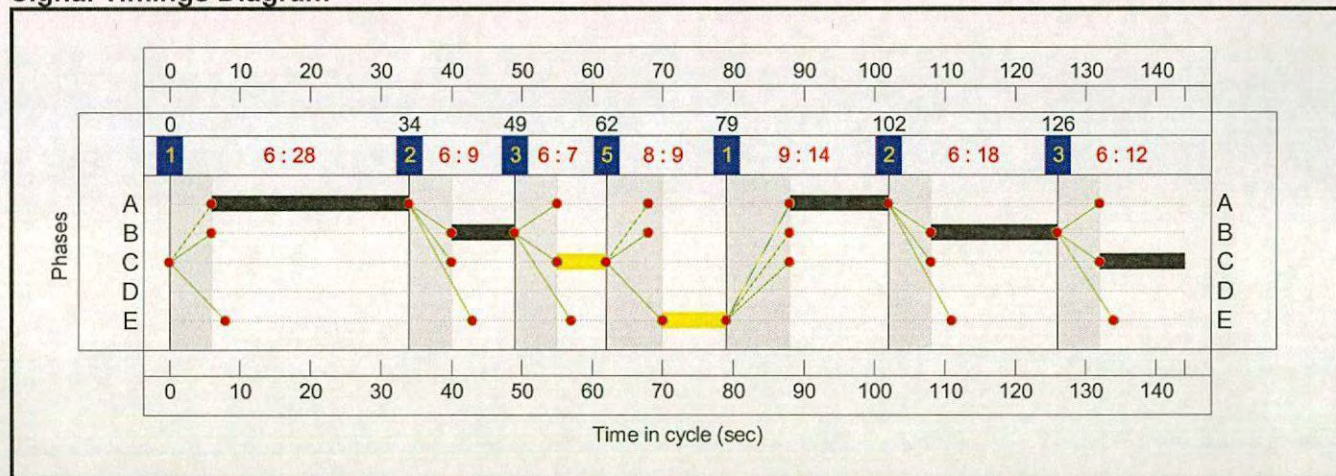
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	5	1	2	3
Duration	28	9	7	9	14	18	12
Change Point	0	34	49	62	79	102	126

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

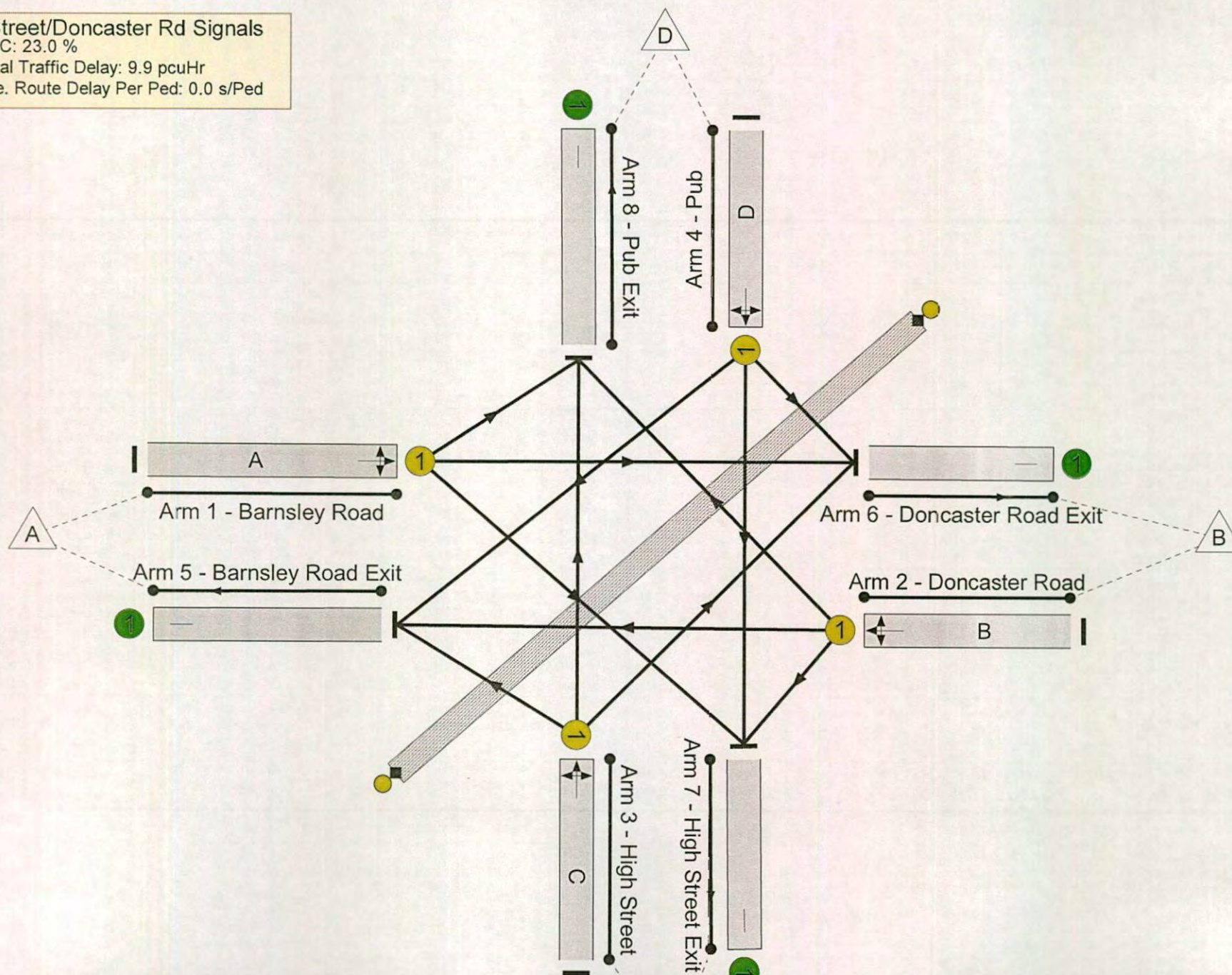
High Street/Doncaster Rd Signals



PRC: 23.0 %

Total Traffic Delay: 9.9 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

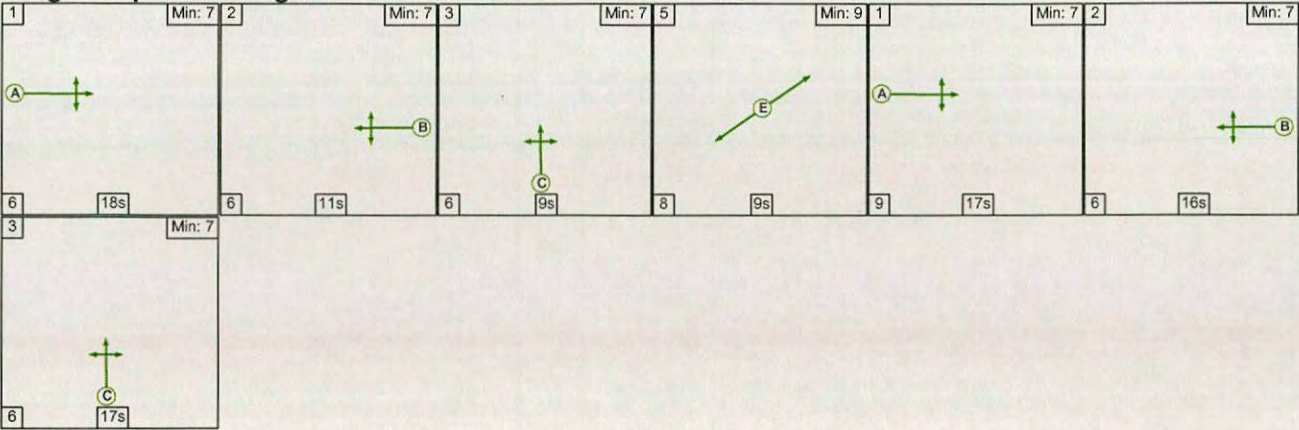
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position/In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: High St/Doncaster Rd Signals	-	-	N/A	-	-		-	-	-	-	-	-	73.2%
High Street/Doncaster Rd Signals	-	-	N/A	-	-		-	-	-	-	-	-	73.2%
1/1	Barnsley Road Ahead Right Left	U	N/A	N/A	A		2	42	-	411	1866	570	72.1%
2/1	Doncaster Road Ahead Left Right	U	N/A	N/A	B		2	27	-	267	1812	365	73.2%
3/1	High Street Left Right Ahead	U	N/A	N/A	C		2	19	-	188	1806	263	71.4%
4/1	Pub Right Left Ahead	U	N/A	N/A	D		0	0	-	0	1800	0	0.0%
5/1	Barnsley Road Exit	U	N/A	N/A	-		-	-	-	181	Inf	Inf	0.0%
6/1	Doncaster Road Exit	U	N/A	N/A	-		-	-	-	192	Inf	Inf	0.0%
7/1	High Street Exit	U	N/A	N/A	-		-	-	-	493	Inf	Inf	0.0%
8/1	Pub Exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Red Link: P1	Ped All Red	-	N/A	-	E		1	9	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean-Max Queue (pcu)
Network: High St/Doncaster Rd Signals	-	-	0	0	0	6.1	3.8	0.0	9.9	-	-	-	-
High Street/Doncaster Rd Signals	-	-	0	0	0	6.1	3.8	0.0	9.9	-	-	-	-
1/1	411	411	-	-	-	2.6	1.3	-	3.8	33.5	7.6	1.3	8.9
2/1	267	267	-	-	-	2.0	1.3	-	3.3	44.8	5.0	1.3	6.4
3/1	188	188	-	-	-	1.6	1.2	-	2.8	52.9	4.0	1.2	5.2
4/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	181	181	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	192	192	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		23.0	Total Delay for Signalled Lanes (pcuHr):		9.91	Cycle Time (s): 144				
			PRC Over All Lanes (%):		23.0	Total Delay Over All Lanes (pcuHr):		9.91					

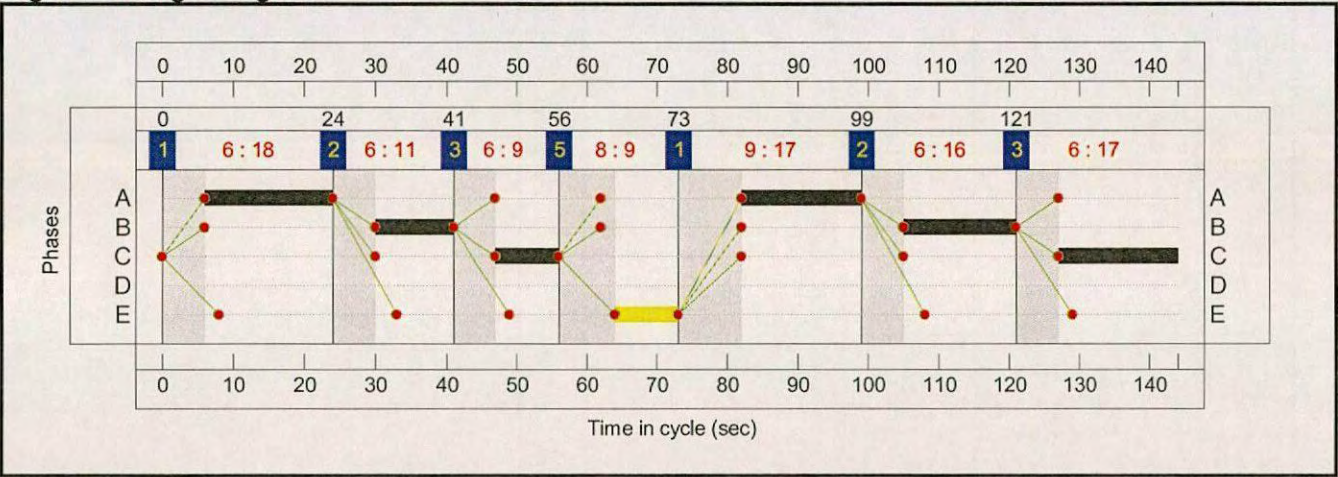
Full Input Data And Results
Scenario 4: '2018 PM BASE' (FG4: '2018 PM BASE', Plan 2: 'PM PEAK')
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	5	1	2	3
Duration	18	11	9	9	17	16	17
Change Point	0	24	41	56	73	99	121

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram