

PROPOSED RESIDENTIAL DEVELOPMENT, LAND NORTH OF BLACKMOORFOOT ROAD, HUDDERSFIELD (PLANNING REF:2020/92546) – TECHNICAL NOTE 04 (MARCH 2021)

Croft have been instructed by the Empire Knight Group to produce a Technical Note in support of proposals for a residential development on land to the north of Blackmoorfoot Road and east of Felks Stile Road in Huddersfield (Planning Ref: 2020/92546).

This note has been produced in response to the Kirklees Council (KC) Highways Consultation Response dated 2nd December 2020 and subsequent responses regarding traffic impact at the following junctions on the local highway network;

- Blackmoorfoot Road/Park Road signal controlled junction;
- A62 Manchester Road/Blackmoorfoot Road signal controlled junction;
- A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street signal controlled junction.

The capacity analysis of each of the above junctions will be considered within this Technical Note. However, prior to considering the junction capacity analysis, the following section will consider the robustness of the traffic impact analysis used to assess the operation of the junctions.

Traffic Impact Analysis Assumptions

Prior to considering the results of the traffic impact analysis, it is important to consider the robustness of the junction assessments that have been requested by the highways officers at KC.

Traffic Growth on Highway Network

To assess the operation of the network, the highways officers at KC requested that years of assessment of 2022 and 2031 be assumed.

Given the constraints on the local highway network, its extremely unlikely that there would be 17% worth of peak hour growth on the network between 2017 and 2031, if there is any growth over the proposed/committed developments included within the modelling, this would in all likelihood result in peak spreading. Therefore, it is highly unlikely that there would be any traffic growth on the network during the peak periods.

It should also be noted that the above assumptions don't taken into account the long term impact of COVID 19 on travel patterns and traffic growth on the local highway network.

It is therefore concluded that the traffic growth assumptions detailed above provide an extremely robust/worst case scenario assessment of the local highway network. Due to the above it is our strong view that limited weight should be applied to 2031 capacity results.

Traffic Generation and Trip Distribution

As requested by the highways officers at KC, the forecast development flows have been derived using the agreed trip rates for the consented St. Luke's development which were agreed in 2014.

However, with regard to trip rates and travel patterns, it is important to recognise that advice set out in the TRICS Guidance Note titled 'Change in Travel Behaviour', which was published in July 2019. This study is based on several data sources including the DfT's Traffic Forecast 18 and TRICS trend analysis of historical trip rates for the three main land-uses (Food Retail, Office and Houses Privately Owned).

The findings of the study indicate that during the period from 2002 to 2017, residential trip rates have declined by around 12%. These reductions are the result of modal shift but more notably reductions in commuter and shopping trips during this period due to increases in homeworking and online deliveries. As a consequence, the study concludes, at paragraph 6.3, that:

'TRICS bank of data and historic trends analysis provides the context for TRICS users to recognise that change in travel behaviour is happening at a local level. This change in travel behaviour needs to be reflected in the analysis of trip generation for local development proposals.'

Paragraph 6.6 goes on to state that:

'It is important to remember that TRICS holds a valuable bank of data which when applied with the consideration of trends in changes of travel behaviour, can provide practitioners with a new view on trip generation'

That is to say, trip rates obtained from the TRICS database should be used as a starting point in determining the trip generation of future development, but account should be properly taken of the trends in travel behaviour which are clearly showing an overall reduction in the demand for travel. In light of the above and the changes in travel patterns as a result of COVID-19, it is concluded that the trip rates used within this impact analysis provide a robust assessment of the local highway network.

In addition, as requested by the highways officers at KC, the proposed development traffic has been assigned to the local highway network using a fixed route matrix. This assumes that 93% of traffic travels along Blackmoorfoot Road and 66% travelling through the Manchester Road/Blackmoorfoot Road junction. In reality, there are numerous other routes that drivers could take from the development which would reduce the level of vehicle movements at the junctions within the study area.

It is therefore concluded that the traffic generation assumptions detailed above provide an extremely robust assessment of the impact of the development proposals on the local highway network.

Capacity Assessments

The following section of this Technical Note will consider the operation of the following junctions on the local highway network.

- Blackmoorfoot Road/Park Road signal controlled junction;
- A62 Manchester Road/Blackmoorfoot Road signal controlled junction;
- A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street signal controlled junction.

Blackmoorfoot Road/Park Road Signal Controlled Junction

To assess the impact of the development proposals on the Blackmoorfoot Road/Park Road/Park Road West junction signal controlled junction. The agreed LINSIG model which includes the improvement scheme that was consented as part of the St. Luke's Hospital Planning Application (Planning Ref: 2014/60/93099W) has been utilised.

However, since the submission of the Blackmoorfoot Road Transport Assessment, the following amendments have been made to the model as agreed/requested by Kirklees Council's Urban Traffic Control (UTC);

- Removal of left-turn short lanes on the Blackmoorfoot Road approaches.
- Gradient of 6% inputted on the Blackmoorfoot Road n/b arm of the junction.
- Inclusion Intergreen of 5 seconds on the Park Road West Indicative Right-turn area.
- Revised cycle times of 104 seconds for the AM Base and 112 seconds for the With Development scenario. Whilst 112 seconds assumed for the PM peak period, this is a standard cycle time used by Kirklees UTC.

As agreed with UTC, the operation of the junction has been assessed using the following two scenarios;

- Pedestrians Called Every Other Cycle – i.e. 16 times during the peak periods.
- No Pedestrian Stages Called.

In reality the pedestrian stages will be called somewhere between these two scenarios, there may be instances where the pedestrian stage isn't called for 3 or 4 stages which will mean more green time for vehicles. But there will also be instances where increased pedestrian activity means less green time for traffic.

It is our understanding that as part of the consented improvements works being provided by the St. Luke's development will include kerbside detectors which will improve the efficiency of the pedestrian stages at the junction.

Tables 1 and 2 below summarises the results of the LINSIG assessments 2022 and 2031 Base and With Development assessments for the Weekday AM peak (Pedestrians Called Every Other Cycle) and Weekday AM peak (Pedestrians Not Called) whilst the full output is contained within **Appendix 1**.

Arm	2022				2031			
	Base		With		Base		With	
	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Blackmoorfoot Road (N)	76.3	22	92.8	37	82.2	22	99.3	51
Park Road West	75.3	15	93.5	20	82.7	18	99.7	29
Blackmoorfoot Road (S)	44.2	9	49.3	10	47.7	9	53.2	12
Park Road	62.2	8	92.1	12	75.2	9	101.2	19
PRC +/-	+18.0		-3.8		+8.9		-12.4	

Table 1 – Summary of LINSIG Output for Blackmoorfoot Road/Park Road/Park Road West Junction – 2022 and 2031 Base and With Development AM Scenarios (Peds Every Other Cycle)

Arm	2022				2031			
	Base		With		Base		With	
	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Blackmoorfoot Road (N)	69.8	16	87.8	30	76.6	19	92.5	35
Park Road West	70.9	12	85.0	16	76.0	14	93.2	21
Blackmoorfoot Road (S)	40.4	7	46.6	9	44.5	8	49.5	10
Park Road	62.3	7	92.0	12	75.5	8	101.2	18
PRC +/-	+27.0		-2.2		+17.6		-12.4	

Table 2 – Summary of LINSIG Output for Blackmoorfoot Road/Park Road/Park Road West Junction – 2022 and 2031 Base and With Development AM Scenarios (Peds Not Called)

As can be seen in Table 1, the Blackmoorfoot Road/Park Road junction is forecast to operate within its actual capacity in the all of the 2022 and 2031 Base scenarios with the pedestrian stages called every other cycle.

With the addition of the proposed development the junction is forecast to operate within its actual capacity in the 2022 With Development scenarios with minimal increases in the Degree of Saturation (DOS) and Mean Max Queue (MMQ). In the 2031 With Development scenario the junction is forecast to operate with DOS of below 100% on all arms apart from the Park Road arm, but it is important to note that the forecast increase in the MMQ is just 7 vehicles even based on the robust assumptions detailed previously.

As can be seen in Table 2, the junction on the whole is forecast to operate more efficiently due to the pedestrian stages not being called. The junction is forecast to operate within its actual capacity in the 2022 and 2031 Base scenarios. With the addition of the development traffic the junction is forecast to operate within its actual capacity (apart from Park Road in 2031) with minimal increases in the DOS and the MMQ.

It is therefore concluded that the proposed development will have a minimal impact on the operation of the Blackmoorfoot Road/Park Road junction in the Weekday AM peak even with robust assumptions detailed previously.

Tables 3 and 4 below summarises the results of the LINSIG assessments 2022 and 2031 Base and With Development assessments for the Weekday AM peak (Pedestrians Called Every Other Cycle) and Weekday PM peak (Pedestrians Not Called) whilst the full output is contained within **Appendix 1**.

Arm	2022				2031			
	Base		With		Base		With	
	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Blackmoorfoot Road (N)	72.3	20	87.4	29	80.0	24	95.2	37
Park Road West	76.4	13	99.3	24	84.2	18	107.9	48
Blackmoorfoot Road (S)	75.8	19	99.2	43	84.6	24	108.4	80
Park Road	73.2	12	89.0	16	84.5	16	94.4	19
PRC +/-	+17.9		-10.3		+6.4		-20.5	

Table 3 – Summary of LINSIG Output for Blackmoorfoot Road/Park Road/Park Road West Junction – 2022 and 2031 Base and With Development PM Scenarios (Peds Every Other Cycle)

Arm	2022				2031			
	Base		With		Base		With	
	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Blackmoorfoot Road (N)	67.8	17	79.6	23	73.5	19	86.3	27
Park Road West	70.0	12	90.3	16	76.7	14	97.7	23
Blackmoorfoot Road (S)	71.0	16	90.3	28	77.7	19	98.3	39
Park Road	65.3	11	87.3	15	72.2	13	91.1	18
PRC +/-	+26.7		+0.3		+15.9		-9.2	

Table 4 – Summary of LINSIG Output for Blackmoorfoot Road/Park Road/Park Road West Junction – 2022 and 2031 Base and With Development PM Scenarios (Peds Not Called)

As can be seen in Table 3, the Blackmoorfoot Road/Park Road junction is forecast to operate within its actual capacity in the 2022 Base scenarios, with the pedestrian stages called every other cycle. Whilst in the 2031 Base scenario the junction is forecast to operate close to or at its actual capacity.

With the addition of the proposed development the junction is forecast to operate within its actual capacity in the 2022 With Development scenarios with minimal increases in the DOS and MMQ. There is forecast to be a queue of 43 vehicles (247 metres) on the Blackmoorfoot Road northbound arm of the junction, this level of queuing would not interact with the A62 Manchester Road/Blackmoorfoot Road junction which is located approximately 520 metres south of the junction.

In the 2031 With Development scenario the junction is forecast to operate in excess of its actual capacity of 100% with queuing forecast on all arms of the junctions. But the queuing does not extend to the A62 Manchester Road/Blackmoorfoot Road junction. As previously stated, assuming an assessment year of 2031 is extremely robust and the results of this analysis should be treated with caution.

As can be seen in Table 4, the junction on the whole is again forecast to operate more efficiently due to the pedestrian stages not being called. The junction is forecast to operate within its actual capacity in the 2022 and 2031 Base scenarios. With the addition of the development traffic the junction is forecast to operate within its actual capacity with minimal increases in the DOS and the MMQ.

It is therefore concluded that even with the robust assumptions detailed previously the proposed development will have minimal impact on the operation of the Blackmoorfoot Road/Park Road.

A62 Manchester Road/Blackmoorfoot Road Signal Controlled Junction

To assess the impact of the development proposals on the A62 Manchester Road/Blackmoorfoot Road junction signal controlled junction.

Since the submission of the Transport Assessment, the following amendments have been made to the model as agreed/requested by Kirklees Council's Urban Traffic Control (UTC);

- Inputted gradient of 3%.
- Reduced the cycle time to 65 seconds.
- Amendments to lane designation on A62 Manchester Road south arm.

Table 5 below summarises the results of the LINSIG assessments 2022 and 2031 Base and With Development assessments for the Weekday AM peak scenarios whilst the full output is contained within **Appendix 2**.

Arm	2022				2031			
	Base		With		Base		With	
	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
A62 Manchester Road (E) Left Ahead Right	67.7	22	88.8	9	79.3	7	97.6	15
Blackmoorfoot Road Right Left Ahead	77.6	15	100.1	32	87.1	14	113.0	115
A62 Manchester Road (W) Ahead Right Left	75.3	9	84.3	13	80.0	13	85.9	14
PRC +/-	+15.9		-11.2		+8.9		-12.4	

Table 5 – Summary of LINSIG Output for A62 Manchester Road/Blackmoorfoot Road Junction – 2022 and 2031 Base and With Development AM Scenarios

As can be seen in Table 5, the A62 Manchester Road/Blackmoorfoot Road junction is forecast to operate within its actual capacity in the all of the 2022 and 2031 Base scenarios.

In the 2022 With Development scenario, the junction is forecast to operate at its actual capacity, the largest increases in the DOS and MMQ is on the Blackmoorfoot Road arm junction, but the actual forecast increases in queuing is 17 vehicles, even based on the robust assumptions detailed previously. It should also be noted that due to the constraints at the Blackmoorfoot Road/Park Road junction located 520 metres upstream, the flow of traffic arriving at the junction is likely to be impacted which would in turn improve the operation of this arm of the junction. However, as agreed with UTC no reduction in traffic flow has been applied as part of this analysis.

In the 2031 With Development, the junction is forecast to operate in excess of its actual capacity on the Blackmoorfoot Road arm of the junction. However, this is based in the robust assumptions detailed previously and in reality the level of traffic including within the junction would not occur during the peak period.

It is therefore concluded that the proposed development will have a minimal impact on the operation of the A62 Manchester Road/Blackmoorfoot Road junction in the Weekday AM peak even with robust assumptions detailed previously.

Table 6 below summarises the results of the LINSIG assessments 2022 and 2031 Base and With Development assessments for the Weekday PM peak scenarios whilst the full output is contained within **Appendix 2**.

Arm	2022				2031			
	Base		With		Base		With	
	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
A62 Manchester Road (E) Left Ahead Right	79.4	7	87.9	11	91.1	12	98.8	39
Blackmoorfoot Road Right Left Ahead	78.6	15	84.4	12	88.1	15	96.6	22
A62 Manchester Road (W) Ahead Right Left	51.1	9	56.2	7	58.1	7	61.9	8
PRC +/-	+13.4		+2.4		-1.9		-9.8	

Table 6 – Summary of LINSIG Output for A62 Manchester Road/Blackmoorfoot Road Junction – 2022 and 2031 Base and With Development PM Scenarios

As can be seen in Table 6, the A62 Manchester Road/Blackmoorfoot Road junction is forecast to operate within its actual capacity in the 2022 and 2031 Base scenarios. With the addition of the development traffic, the junction is forecast to operate within its actual capacity in both the assessments scenarios with minimal increases in the DOS and the MMQ.

It is therefore concluded that even with the robust assumption detailed previously the proposed development will have minimal impact on the operation of the A62 Manchester Road/Blackmoorfoot Road junction.

A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street Signal Controlled Junction

To assess the impact of the development proposals on the A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street junction signal controlled junction.

Since the submission of the Transport Assessment, the following amendments have been made to the model as agreed/requested by Kirklees Council's Urban Traffic Control (UTC);

- Amendments to lane lengths on the Lockwood Road arms of the junction.

Table 7 below summarises the results of the LINSIG assessments 2022 and 2031 Base and With Development assessments for the Weekday AM peak scenarios whilst the full output is contained within **Appendix 3**.

Arm	2022				2031			
	Base		With		Base		With	
	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Bridge Street Left Ahead	64.6	9	70.4	10	76.7	11	83.5	13
Bridge Street Right	97.3	21	99.6	25	112.3	62	113.9	67
A616 Lockwood Road Left Ahead	66.4	14	66.4	14	68.4	15	68.4	15
A616 Lockwood Road Right	96.0	9	96.0	10	109.0	15	109.8	15
Swan Lane Left Ahead Right	99.1	25	101.9	30	111.7	49	114.4	58
B6108 Meltham Road Ahead Right Left	84.5	20	84.5	20	87.1	23	87.1	23
B6108 Meltham Road Ahead Right	56.7	4	56.7	4	63.3	5	63.3	5
PRC +/-	-10.2		-13.3		-24.7		-27.9	

Table 7 – Summary of LINSIG Output for A616 Lockwood Road/B6108 Meltham Road/Bridge Street/Swan Lane Junction – 2022 and 2031 Base and With Development AM Scenarios

As can be seen in Table 7, the A616 Lockwood Road/B6108 Meltham Road/Bridge Street/Swan Lane is forecast to operate close to or in excess of its actual capacity in the 2022 and 2031 Base scenarios. With the addition of the proposed development there is forecast to be minimal increases in the DOS and MMQ. This is due to the fact that even within the robust trip generation detailed previously the proposed development will result in increases of 1.6% in traffic flows at the junction which equates to an additional 45 two-way movements at the junction.

Table 8 below summarises the results of the LINSIG assessments 2022 and 2031 Base and With Development assessments for the Weekday PM peak scenarios whilst the full output is contained within **Appendix 3**.

Arm	2022				2031			
	Base		With		Base		With	
	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Bridge Street Left Ahead	94.1	17	97.9	21	113.4	41	106.7	33
Bridge Street Right	75.0	9	73.1	9	86.3	11	80.5	10
A616 Lockwood Road Left Ahead	90.1	26	91.9	27	92.2	30	103.7	50
A616 Lockwood Road Right	70.2	9	71.9	8	72.8	9	86.5	12
Swan Lane Left Ahead Right	95.5	19	100.0	24	112.6	45	104.4	32
B6108 Meltham Road Ahead Right Left	43.9	9	44.8	9	44.7	9	50.3	10
B6108 Meltham Road Ahead Right	85.2	4	99.1	7	100.9	8	127.8	19
PRC +/-	-6.1		-11.1		-26.0		-42.0	

Table 8 – Summary of LINSIG Output for A616 Lockwood Road/B6108 Meltham Road/Bridge Street/Swan Lane Junction – 2022 and 2031 Base and With Development PM Scenarios

As can be seen in Table 7, the A616 Lockwood Road/B6108 Meltham Road/Bridge Street/Swan Lane junction is forecast to operate close to or in excess of its actual capacity in the 2022 and 2031 Base scenarios. With the addition of the proposed development there is forecast to be minimal increases in the DOS and MMQ. This is due to the fact that even within the robust trip generation detailed previously the proposed development will result in increases of 1.8% in traffic flows at the junction which equates to an additional 48 two-way movements at the junction.

Based on the above it is concluded that the proposed development will have a minimal impact on the operation of the A616 Lockwood Road/B6108 Meltham Road/Bridge Street/Swan Lane junction.

Summary

This Technical Note has been produced to summarises the results of the additional junction analysis requested by the officers at KC, this note has concluded the following;

- The traffic impact analysis is based on extremely robust assumptions that provide a worst-case assessment of the impact of the proposals.

- The proposed development will have a minimal impact at the Blackmoorfoot Road/Park Road/Park West signal controlled junction
- The proposed development will have a minimal impact at the A62 Manchester Road/Blackmoorfoot Road signal controlled junction even based on the robust assumptions contained within the analysis.
- The proposed development will have a negligible impact at the A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street signal controlled junction.

It is therefore concluded that the proposed development will not result in a severe impact, therefore planning permission should be granted in accordance with the Framework.

APPENDICES

APPENDIX 1

LINSIG Output – Blackmoorfoot Road/Park Road

User and Project Details

Project:	Fireworks Factory, Blackmoorfoot Road
Title:	Blackmoorfoot Road- Park Road (Consented Improvement) – AM Peak
Location:	Huddersfield
Additional detail:	
File name:	Blackmoorfoot Road-Park Road (Consented Improvement Layout) Revised Development Flows - March 2021 - AM Peak.lsg3x
Author:	
Company:	Croft
Address:	

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	Ind. Arrow	D	4	4
F	Pedestrian		6	6
G	Dummy		2	2
H	Dummy		6	6
I	Dummy		2	2
J	Dummy		4	4
K	Dummy		2	2
L	Dummy		2	2
M	Dummy		2	2
N	Dummy		2	2

Phase Intergreens Matrix

	Starting Phase													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Terminating Phase	A	-	8	8	8	8	-	8	8	3	-	5	8	8
	B	-	-	8	8	8	-	8	8	3	5	-	8	8
	C	6	6	-	5	8	6	8	-	3	6	6	-	5
	D	6	6	-	-	8	6	8	-	3	6	6	5	-
	E	6	6	5	-	-	-	-	-	-	-	-	-	-
	F	8	8	8	8	-	8	-	8	3	8	8	8	8
	G	-	-	8	8	-	8	-	8	-	3	-	-	-
	H	8	8	8	8	-	8	-	8	3	8	8	8	8
	I	6	6	-	-	8	-	8	-	3	-	-	-	-
	J	2	2	2	2	-	2	2	2	-	2	2	2	2
	K	-	5	8	8	-	8	-	8	-	3	-	-	-
	L	5	-	8	8	-	8	-	8	-	3	-	-	-
	M	6	6	-	5	-	8	-	8	-	3	-	-	-
	N	6	6	5	-	8	-	8	-	3	-	-	-	-

Phase Delays

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

Prohibited Stage Change

	To Stage									
	1	2	3	4	5	6	7	8	9	10
From Stage	1	-	8	8	8	3	5	5	8	8
	2	8	-	8	3	8	8	8	8	3
	3	6	8	-	5	3	6	6	5	5
	4	6	8	5	-	3	6	6	5	0
	5	2	2	2	3	-	2	2	2	2
	6	5	8	8	8	3	-	5	8	8
	7	5	8	8	8	3	5	-	8	8
	8	6	8	5	5	3	6	6	-	5
	9	6	8	5	0	3	6	6	5	-
	10	6	8	5	0	3	6	6	5	0

Phases in Stage

Stage No.	Phases in Stage
1	A B G
2	F H
3	C D I
4	D E
5	J
6	A K
7	B L
8	C M
9	D N
10	D E

Give-Way Lane Input Data

Junction: Blackmoorfoot Road/Park Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/2 (Park Road West)	5/1 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 6/1 (Ahead)	2.00	-	0.50	2	2.00
4/1 (Park Road)	7/1 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 8/1 (Ahead)	1.00	1.00	0.50	1	1.00

Lane Input Data

Junction: Blackmoorfoot Road/Park Road												
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 (Blackmoorfoot Road (n))	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left	Inf
											Arm 7 Ahead	Inf
											Arm 8 Right	20.00
2/1 (Park Road West)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 7 Left	15.00
2/2 (Park Road West)	O	D E	2	3	6.0	Geom	-	2.50	0.00	N	Arm 8 Ahead	Inf
3/1 (Blackmoorfoot Road (s))	U	A	2	3	60.0	Geom	-	4.00	6.00	Y	Arm 5 Right	20.00
											Arm 5 Ahead	Inf
											Arm 6 Right	20.00
4/1 (Park Road)	O	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 8 Left	Inf
											Arm 5 Left	10.00
											Arm 6 Ahead	Inf
5/1	U		2	3	60.0	Inf	-	-	-	-	Arm 7 Right	15.00
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows

Scenario 1: '2017 Surveyed Flows - Weekday AM Peak' (FG1: '2017 Surveyed Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	6.0 %	1951	1951
				Arm 7 Ahead	Inf	84.5 %		
				Arm 8 Right	20.00	9.5 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.1 %	1848	1848
				Arm 8 Ahead	Inf	90.9 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	85.9 %	1755	1755
				Arm 6 Right	20.00	5.7 %		
				Arm 8 Left	Inf	8.4 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	18.9 %	1889	1889
				Arm 6 Ahead	Inf	69.1 %		
				Arm 7 Right	15.00	12.0 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 2: '2022 Base Flows - Weekday AM Peak (Peds Every Other Cycle)' (FG5: '2022 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	15.0 %	1954	1954
				Arm 7 Ahead	Inf	77.8 %		
				Arm 8 Right	20.00	7.2 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.1 %	1848	1848
				Arm 8 Ahead	Inf	90.9 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	89.2 %	1757	1757
				Arm 6 Right	20.00	4.4 %		
				Arm 8 Left	Inf	6.4 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	19.0 %	1888	1888
				Arm 6 Ahead	Inf	69.0 %		
				Arm 7 Right	15.00	12.1 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 3: '2031 Base Flows - Weekday AM Peak (Peds Every Other Cycle)' (FG6: '2031 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	14.3 %	1954	1954
				Arm 7 Ahead	Inf	78.3 %		
				Arm 8 Right	20.00	7.4 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.1 %	1848	1848
				Arm 8 Ahead	Inf	90.9 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	88.7 %	1757	1757
				Arm 6 Right	20.00	4.6 %		
				Arm 8 Left	Inf	6.6 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	18.8 %	1889	1889
				Arm 6 Ahead	Inf	69.1 %		
				Arm 7 Right	15.00	12.1 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 4: '2022 With Development Flows - Weekday AM Peak (Peds Every Other Cycle)' (FG8: '2022 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	12.0 %	1953	1953
				Arm 7 Ahead	Inf	79.9 %		
				Arm 8 Right	20.00	8.1 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.1 %	1848	1848
				Arm 8 Ahead	Inf	90.9 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	91.8 %	1759	1759
				Arm 6 Right	20.00	3.4 %		
				Arm 8 Left	Inf	4.8 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	23.3 %	1878	1878
				Arm 6 Ahead	Inf	65.3 %		
				Arm 7 Right	15.00	11.5 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2031 With Development Flows - Weekday AM Peak (Peds Every Other Cycle)' (FG9: '2031 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	11.6 %	1953	1953
				Arm 7 Ahead	Inf	80.2 %		
				Arm 8 Right	20.00	8.2 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.1 %	1848	1848
				Arm 8 Ahead	Inf	90.9 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	91.3 %	1758	1758
				Arm 6 Right	20.00	3.6 %		
				Arm 8 Left	Inf	5.1 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	22.7 %	1879	1879
				Arm 6 Ahead	Inf	65.7 %		
				Arm 7 Right	15.00	11.5 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 6: '2022 Base Flows - Weekday AM Peak (No Peds)' (FG5: '2022 Base Flows - AM Peak ', Plan 2: 'Network Control Plan 2')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	15.0 %	1954	1954
				Arm 7 Ahead	Inf	77.8 %		
				Arm 8 Right	20.00	7.2 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.1 %	1848	1848
				Arm 8 Ahead	Inf	90.9 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	89.2 %	1757	1757
				Arm 6 Right	20.00	4.4 %		
				Arm 8 Left	Inf	6.4 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	19.0 %	1888	1888
				Arm 6 Ahead	Inf	69.0 %		
				Arm 7 Right	15.00	12.1 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 7: '2031 Base Flows - Weekday AM Peak (No Peds)' (FG6: '2031 Base Flows - AM Peak ', Plan 2: 'Network Control Plan 2')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	14.3 %	1954	1954
				Arm 7 Ahead	Inf	78.3 %		
				Arm 8 Right	20.00	7.4 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.1 %	1848	1848
				Arm 8 Ahead	Inf	90.9 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	88.7 %	1757	1757
				Arm 6 Right	20.00	4.6 %		
				Arm 8 Left	Inf	6.6 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	18.8 %	1889	1889
				Arm 6 Ahead	Inf	69.1 %		
				Arm 7 Right	15.00	12.1 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2022 With Development Flows - Weekday AM Peak (No Peds)' (FG8: '2022 With Development Flows - AM Peak ', Plan 2: 'Network Control Plan 2')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	12.0 %	1953	1953
				Arm 7 Ahead	Inf	79.9 %		
				Arm 8 Right	20.00	8.1 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.1 %	1848	1848
				Arm 8 Ahead	Inf	90.9 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	91.8 %	1759	1759
				Arm 6 Right	20.00	3.4 %		
				Arm 8 Left	Inf	4.8 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	23.3 %	1878	1878
				Arm 6 Ahead	Inf	65.3 %		
				Arm 7 Right	15.00	11.5 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 9: '2031 With Development Flows - Weekday AM Peak (No Peds)' (FG9: '2031 With Development Flows - AM Peak ', Plan 2: 'Network Control Plan 2')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	11.6 %	1953	1953
				Arm 7 Ahead	Inf	80.2 %		
				Arm 8 Right	20.00	8.2 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.1 %	1848	1848
				Arm 8 Ahead	Inf	90.9 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	91.3 %	1758	1758
				Arm 6 Right	20.00	3.6 %		
				Arm 8 Left	Inf	5.1 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	22.7 %	1879	1879
				Arm 6 Ahead	Inf	65.7 %		
				Arm 7 Right	15.00	11.5 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2017 Surveyed Flows - AM Peak '	07:45	08:45	01:00	
2: '2022 Growthed Flows - AM Peak'	07:45	08:45	01:00	F1*1.061
3: '2031 Growthed Flows - AM Peak '	07:45	08:45	01:00	F1*1.169
4: 'Committed Development Flows - AM Peak '	08:00	09:00	01:00	
5: '2022 Base Flows - AM Peak '	07:45	08:45	01:00	F2+F4
6: '2031 Base Flows - AM Peak '	07:45	08:45	01:00	F3+F4
7: 'Proposed Development Flows - AM Peak'	07:45	08:45	01:00	
8: '2022 With Development Flows - AM Peak '	07:45	08:45	01:00	F5+F7
9: '2031 With Development Flows - AM Peak '	07:45	08:45	01:00	F6+F7

Traffic Flows, Desired

FG1: '2017 Surveyed Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	30	420	47	497
	B	78	0	35	349	462
	C	226	15	0	22	263
	D	44	161	28	0	233
	Tot.	348	206	483	418	1455

FG2: '2022 Growthed Flows - AM Peak'

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	32	446	50	528
	B	83	0	37	370	490
	C	240	16	0	23	279
	D	47	171	30	0	248
	Tot.	370	219	513	443	1545

FG3: '2031 Growthed Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	35	491	55	581
	B	91	0	41	408	540
	C	264	18	0	26	308
	D	51	188	33	0	272
	Tot.	406	241	565	489	1701

FG4: 'Committed Development Flows - AM Peak '
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	72	95	0	167
	B	44	0	0	0	44
	C	83	0	0	0	83
	D	0	0	0	0	0
	Tot.	127	72	95	0	294

FG5: '2022 Base Flows - AM Peak '
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	104	541	50	695
	B	127	0	37	370	534
	C	323	16	0	23	362
	D	47	171	30	0	248
	Tot.	497	291	608	443	1839

FG6: '2031 Base Flows - AM Peak '
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	107	586	55	748
	B	135	0	41	408	584
	C	347	18	0	26	391
	D	51	188	33	0	272
	Tot.	533	313	660	489	1995

FG7: 'Proposed Development Flows - AM Peak'
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	15	254	31	300
	B	7	0	0	0	7
	C	114	0	0	0	114
	D	14	0	0	0	14
	Tot.	135	15	254	31	435

FG8: '2022 With Development Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	119	795	81	995
	B	134	0	37	370	541
	C	437	16	0	23	476
	D	61	171	30	0	262
	Tot.	632	306	862	474	2274

FG9: '2031 With Development Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	122	840	86	1048
	B	142	0	41	408	591
	C	461	18	0	26	505
	D	65	188	33	0	286
	Tot.	668	328	914	520	2430

Stage Timings

Scenario 1: '2017 Surveyed Flows - Weekday AM Peak' (FG1: '2017 Surveyed Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	21	7	4	9	6	7	4
Change Point	0	27	42	51	66	80	95

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	-	-	N/A	-	-		-	-	-	-	-	-	82.8%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	82.8%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	30	-	497	1951	600	82.8%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	32	8	462	1848:1865	563+114	68.2 : 68.2%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	30	-	263	1755	540	48.7%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	14	-	233	1889	291	80.2%
5/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	206	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	483	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	418	Inf	Inf	0.0%

LinSig V1 style report

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	-	-	69	34	3	6.7	5.7	0.2	12.6	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	69	34	3	6.7	5.7	0.2	12.6	-	-	-	-
1/1	497	497	-	-	-	2.4	2.3	-	4.7	34.0	7.9	2.3	10.2
2/1+2/2	462	462	41	34	3	1.9	1.1	0.1	3.0	23.6	4.8	1.1	5.9
3/1	263	263	-	-	-	1.1	0.5	-	1.6	21.7	3.7	0.5	4.1
4/1	233	233	28	0	0	1.4	1.9	0.1	3.3	51.5	3.3	1.9	5.2
5/1	348	348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	206	206	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	418	418	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										PRC for Signalled Lanes (%): 8.7 PRC Over All Lanes (%): 8.7	Total Delay for Signalled Lanes (pcuHr): 12.64 Total Delay Over All Lanes (pcuHr): 12.64	Cycle Time (s): 104	

Stage Timings

Scenario 2: '2022 Base Flows - Weekday AM Peak (Peds Every Other Cycle)' (FG5: '2022 Base Flows - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	64	21	4	31	6	32	4
Change Point	0	70	99	108	145	159	199

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	-	-	N/A	-	-		-	-	-	-	-	-	76.3%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	76.3%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	95	-	695	1954	911	76.3%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	71	8	534	1848:1865	540+169	75.3 : 75.3%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	95	-	362	1757	819	44.2%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	53	-	248	1888	398	62.2%
5/1		U	N/A	N/A	-		-	-	-	497	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	291	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	443	Inf	Inf	0.0%

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	-	-	135	19	2	13.2	4.3	0.4	17.9	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	135	19	2	13.2	4.3	0.4	17.9	-	-	-	-
1/1	695	695	-	-	-	4.7	1.6	-	6.2	32.4	20.3	1.6	21.9
2/1+2/2	534	534	105	19	2	4.3	1.5	0.3	6.0	40.6	13.4	1.5	14.9
3/1	362	362	-	-	-	2.0	0.4	-	2.4	23.5	8.5	0.4	8.9
4/1	248	248	30	0	0	2.3	0.8	0.1	3.2	46.9	6.8	0.8	7.6
5/1	497	497	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	291	291	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	443	443	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 208			
										Total Delay for Signalled Lanes (pcuHr): 17.86			
										Total Delay Over All Lanes (pcuHr): 17.86			
										PRC for Signalled Lanes (%): 18.0			
										PRC Over All Lanes (%): 18.0			

Stage Timings

Scenario 3: '2031 Base Flows - Weekday AM Peak (Peds Every Other Cycle)' (FG6: '2031 Base Flows - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	44	31	4	51	6	22	4
Change Point	0	50	89	98	155	169	199

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	-	-	N/A	-	-		-	-	-	-	-	-	82.7%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	82.7%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	95	-	748	1954	911	82.1%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	71	8	584	1848:1865	543+163	82.7 : 82.7%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	95	-	391	1757	819	47.7%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	53	-	272	1889	362	75.2%
5/1		U	N/A	N/A	-		-	-	-	533	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	313	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	660	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	489	Inf	Inf	0.0%

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	-	-	119	31	19	14.5	6.5	0.5	21.4	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	119	31	19	14.5	6.5	0.5	21.4	-	-	-	-
1/1	748	748	-	-	-	5.0	2.2	-	7.2	34.8	19.3	2.2	21.6
2/1+2/2	584	584	100	31	4	4.9	2.3	0.3	7.5	46.1	15.9	2.3	18.2
3/1	391	391	-	-	-	2.1	0.5	-	2.5	23.3	8.0	0.5	8.5
4/1	272	272	19	0	14	2.5	1.5	0.2	4.2	55.5	7.7	1.5	9.2
5/1	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	313	313	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	660	660	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 208			
PRC for Signalled Lanes (%): 8.9 PRC Over All Lanes (%): 8.9										Total Delay for Signalled Lanes (pcuHr): 21.42 Total Delay Over All Lanes (pcuHr): 21.42			

Stage Timings

Scenario 4: '2022 With Development Flows - Weekday AM Peak (Peds Every Other Cycle)' (FG8: '2022 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	69	24	4	52	6	19	4
Change Point	0	75	107	116	174	188	215

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	-	-	N/A	-	-		-	-	-	-	-	-	93.5%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	93.5%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	121	-	995	1953	1072	92.8%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	61	8	541	1848:1865	435+143	93.5 : 93.5%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	121	-	476	1759	966	49.3%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	43	-	262	1878	285	92.1%
5/1		U	N/A	N/A	-		-	-	-	632	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	862	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	474	Inf	Inf	0.0%

LinSig V1 style report

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	-	-	99	53	12	17.3	15.9	0.5	33.6	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	99	53	12	17.3	15.9	0.5	33.6	-	-	-	-
1/1	995	995	-	-	-	6.5	5.6	-	12.1	43.7	31.0	5.6	36.6
2/1+2/2	541	541	77	53	3	5.7	5.5	0.3	11.6	76.9	14.6	5.5	20.1
3/1	476	476	-	-	-	2.1	0.5	-	2.6	19.4	9.9	0.5	10.4
4/1	262	262	22	0	8	3.0	4.2	0.2	7.4	102.3	7.7	4.2	11.9
5/1	632	632	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	862	862	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	474	474	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 224			
PRC for Signalled Lanes (%):				-3.8	Total Delay for Signalled Lanes (pcuHr):				33.64				
PRC Over All Lanes (%):				-3.8	Total Delay Over All Lanes (pcuHr):				33.64				

Stage Timings

Scenario 5: '2031 With Development Flows - Weekday AM Peak (Peds Every Other Cycle)' (FG9: '2031 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	67	23	4	52	6	22	4
Change Point	0	73	104	113	171	185	215

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	-	-	N/A	-	-		-	-	-	-	-	-	101.2%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	101.2%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	119	-	1048	1953	1055	99.3%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	63	8	591	1848;1865	450+142	99.7 : 99.7%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	119	-	505	1758	950	53.2%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	45	-	286	1879	283	101.2%
5/1		U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	328	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	914	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	520	Inf	Inf	0.0%

LinSig V1 style report

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	-	-	72	64	39	19.9	36.1	0.6	56.6	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	72	64	39	19.9	36.1	0.6	56.6	-	-	-	-
1/1	1048	1048	-	-	-	7.6	14.5	-	22.1	75.9	36.4	14.5	50.9
2/1+2/2	591	591	70	64	8	6.3	11.7	0.4	18.4	112.1	16.5	11.7	28.2
3/1	505	505	-	-	-	2.4	0.6	-	2.9	20.9	11.4	0.6	11.9
4/1	286	283	2	0	31	3.6	9.3	0.2	13.2	166.0	9.2	9.3	18.6
5/1	667	667	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	914	914	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	520	520	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 224			
PRC for Signalised Lanes (%): -12.4										Total Delay for Signalised Lanes (pcuHr): 56.62			
PRC Over All Lanes (%): -12.4										Total Delay Over All Lanes (pcuHr): 56.62			

Stage Timings

Scenario 6: '2022 Base Flows - Weekday AM Peak (No Peds)' (FG5: '2022 Base Flows - AM Peak ', Plan 2: 'Network Control Plan 2')

Stage	1	3	4
Duration	52	29	4
Change Point	0	58	95

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	-	-	N/A	-	-		-	-	-	-	-	-	70.9%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	70.9%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		1	52	-	695	1954	996	69.8%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	1	38	4	534	1848:1865	574+179	70.9 : 70.9%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		1	52	-	362	1757	895	40.4%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		1	29	-	248	1888	398	62.3%
5/1		U	N/A	N/A	-		-	-	-	497	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	291	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	443	Inf	Inf	0.0%

LinSig V1 style report

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	-	-	146	9	2	11.3	3.5	0.4	15.2	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	146	9	2	11.3	3.5	0.4	15.2	-	-	-	-
1/1	695	695	-	-	-	3.7	1.1	-	4.9	25.3	15.3	1.1	16.4
2/1+2/2	534	534	116	9	2	3.9	1.2	0.2	5.3	35.8	10.9	1.2	12.1
3/1	362	362	-	-	-	1.6	0.3	-	1.9	19.1	6.4	0.3	6.8
4/1	248	248	30	0	0	2.1	0.8	0.1	3.0	44.1	5.9	0.8	6.7
5/1	497	497	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	291	291	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	443	443	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 104			
PRC for Signalled Lanes (%):				27.0	Total Delay for Signalled Lanes (pcuHr):				15.16				
PRC Over All Lanes (%):				27.0	Total Delay Over All Lanes (pcuHr):				15.16				

Stage Timings

Scenario 7: '2031 Base Flows - Weekday AM Peak (No Peds)' (FG6: '2031 Base Flows - AM Peak ', Plan 2: 'Network Control Plan 2')

Stage	1	3	4
Duration	51	30	4
Change Point	0	57	95

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	-	-	N/A	-	-		-	-	-	-	-	-	76.6%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	76.6%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		1	51	-	748	1954	977	76.6%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	1	39	4	584	1848:1865	591+178	76.0 : 76.0%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		1	51	-	391	1757	879	44.5%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		1	30	-	272	1889	360	75.5%
5/1		U	N/A	N/A	-		-	-	-	533	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	313	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	660	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	489	Inf	Inf	0.0%

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	-	-	156	9	3	12.7	5.1	0.4	18.2	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	156	9	3	12.7	5.1	0.4	18.2	-	-	-	-
1/1	748	748	-	-	-	4.4	1.6	-	6.0	28.8	17.5	1.6	19.1
2/1+2/2	584	584	123	9	3	4.3	1.6	0.3	6.1	37.5	12.5	1.6	14.0
3/1	391	391	-	-	-	1.8	0.4	-	2.2	20.4	7.2	0.4	7.6
4/1	272	272	33	0	0	2.3	1.5	0.2	3.9	52.0	6.4	1.5	7.9
5/1	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	313	313	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	660	660	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 104			
PRC for Signalled Lanes (%): 17.6										Total Delay for Signalled Lanes (pcuHr): 18.21			
PRC Over All Lanes (%): 17.6										Total Delay Over All Lanes (pcuHr): 18.21			

Stage Timings

Scenario 8: '2022 With Development Flows - Weekday AM Peak (No Peds)' (FG8: '2022 With Development Flows - AM Peak ', Plan 2: 'Network Control Plan 2')

Stage	1	3	4
Duration	64	25	4
Change Point	0	70	103

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	-	-	N/A	-	-		-	-	-	-	-	-	92.0%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	92.0%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		1	64	-	995	1953	1133	87.8%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	1	34	4	541	1848:1865	479+158	85.0 : 85.0%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		1	64	-	476	1759	1021	46.6%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		1	25	-	262	1878	285	92.0%
5/1		U	N/A	N/A	-		-	-	-	632	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	862	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	474	Inf	Inf	0.0%

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	-	-	151	11	2	15.3	10.7	0.5	26.6	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	151	11	2	15.3	10.7	0.5	26.6	-	-	-	-
1/1	995	995	-	-	-	5.6	3.4	-	9.0	32.5	26.3	3.4	29.7
2/1+2/2	541	541	121	11	2	5.2	2.7	0.3	8.2	54.4	13.5	2.7	16.2
3/1	476	476	-	-	-	1.8	0.4	-	2.2	16.8	8.5	0.4	8.9
4/1	262	262	30	0	0	2.8	4.2	0.2	7.2	98.5	7.3	4.2	11.5
5/1	632	632	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	862	862	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	474	474	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 112			
PRC for Signalled Lanes (%): -2.2										Total Delay for Signalled Lanes (pcuHr): 26.56			
PRC Over All Lanes (%): -2.2										Total Delay Over All Lanes (pcuHr): 26.56			

Stage Timings

Scenario 9: '2031 With Development Flows - Weekday AM Peak (No Peds)' (FG9: '2031 With Development Flows - AM Peak ', Plan 2: 'Network Control Plan 2')

Stage	1	3	4
Duration	64	25	4
Change Point	0	70	103

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	-	-	N/A	-	-		-	-	-	-	-	-	101.2%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	101.2%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		1	64	-	1048	1953	1133	92.5%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	1	34	4	591	1848;1865	482+152	93.2 : 93.2%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		1	64	-	505	1758	1020	49.5%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		1	25	-	286	1879	283	101.2%
5/1		U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	328	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	914	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	520	Inf	Inf	0.0%

LinSig V1 style report

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	-	-	135	37	3	17.3	20.7	0.6	38.6	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	135	37	3	17.3	20.7	0.6	38.6	-	-	-	-
1/1	1048	1048	-	-	-	6.2	5.4	-	11.6	40.0	29.4	5.4	34.8
2/1+2/2	591	591	103	37	3	5.9	5.5	0.4	11.7	71.5	15.8	5.5	21.3
3/1	505	505	-	-	-	1.9	0.5	-	2.4	17.3	9.1	0.5	9.6
4/1	286	283	33	0	0	3.2	9.3	0.2	12.8	160.8	8.2	9.3	17.5
5/1	667	667	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	914	914	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	520	520	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 112			
										Total Delay for Signalled Lanes (pcuHr): 38.57 Total Delay Over All Lanes(pcuHr): 38.57			
										PRC for Signalled Lanes (%): -12.4 PRC Over All Lanes (%): -12.4			

User and Project Details

Project:	Fireworks Factory, Blackmoorfoot Road
Title:	Blackmoorfoot Road-Park Road – Consented Improvement PM Peak
Location:	Huddersfield
Additional detail:	
File name:	Blackmoorfoot Road-Park Road (Consented Improvement Layout) Revised Development Flows - March 2021 - PM Peak.lsg3x
Author:	
Company:	Croft
Address:	

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	Ind. Arrow	D	4	4
F	Pedestrian		6	6
G	Dummy		2	2
H	Dummy		6	6
I	Dummy		2	2
J	Dummy		4	4
K	Dummy		2	2
L	Dummy		2	2
M	Dummy		2	2
N	Dummy		2	2

Phase Intergreens Matrix

	Starting Phase													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Terminating Phase	A	-	8	8	8	8	-	8	8	3	-	5	8	8
	B	-	-	8	8	8	-	8	8	3	5	-	8	8
	C	6	6	-	5	8	6	8	-	3	6	6	-	5
	D	6	6	-	-	8	6	8	-	3	6	6	5	-
	E	6	6	5	-	-	-	-	-	-	-	-	-	-
	F	8	8	8	8	-	8	-	8	3	8	8	8	8
	G	-	-	8	8	-	8	8	-	3	-	-	-	-
	H	8	8	8	8	-	8	-	8	3	8	8	8	8
	I	6	6	-	-	8	-	8	-	3	-	-	-	-
	J	2	2	2	2	-	2	2	2	-	2	2	2	2
	K	-	5	8	8	-	8	-	8	-	3	-	-	-
	L	5	-	8	8	-	8	-	8	-	3	-	-	-
	M	6	6	-	5	-	8	-	8	-	3	-	-	-
	N	6	6	5	-	-	8	-	8	-	3	-	-	-

Phase Delays

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

Prohibited Stage Change

	To Stage									
	1	2	3	4	5	6	7	8	9	10
From Stage	1	8	8	8	3	5	5	8	8	8
	2	8	-	8	3	8	8	8	8	3
	3	6	8	-	5	3	6	6	5	5
	4	6	8	5	-	3	6	6	5	0
	5	2	2	2	3	2	2	2	2	3
	6	5	8	8	8	3	5	8	8	8
	7	5	8	8	8	3	5	8	8	8
	8	6	8	5	5	3	6	6	5	5
	9	6	8	5	0	3	6	6	5	0
	10	6	8	5	0	3	6	6	5	0

Phases in Stage

Stage No.	Phases in Stage
1	A B G
2	F H
3	C D I
4	D E
5	J
6	A K
7	B L
8	C M
9	D N
10	D E

Give-Way Lane Input Data

Junction: Blackmoorfoot Road/Park Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/2 (Park Road West)	5/1 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 6/1 (Ahead)	2.00	-	0.50	2	2.00
4/1 (Park Road)	7/1 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 8/1 (Ahead)	1.00	1.00	0.50	1	1.00

Lane Input Data

Junction: Blackmoorfoot Road/Park Road												
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 (Blackmoorfoot Road (n))	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left	Inf
											Arm 7 Ahead	Inf
											Arm 8 Right	20.00
2/1 (Park Road West)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 7 Left	15.00
2/2 (Park Road West)	O	D E	2	3	6.0	Geom	-	2.50	0.00	N	Arm 8 Ahead	Inf
3/1 (Blackmoorfoot Road (s))	U	A	2	3	60.0	Geom	-	4.00	6.00	Y	Arm 5 Right	20.00
											Arm 5 Ahead	Inf
											Arm 6 Right	20.00
4/1 (Park Road)	O	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 8 Left	Inf
											Arm 5 Left	10.00
											Arm 6 Ahead	Inf
5/1	U		2	3	60.0	Inf	-	-	-	-	Arm 7 Right	15.00
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows

Scenario 1: '2017 Surveyed Flows - Weekday PM Peak' (FG1: '2017 Surveyed Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	17.8 %	1941	1941
				Arm 7 Ahead	Inf	65.4 %		
				Arm 8 Right	20.00	16.8 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.8 %	1847	1847
				Arm 8 Ahead	Inf	90.2 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	81.5 %	1755	1755
				Arm 6 Right	20.00	6.1 %		
				Arm 8 Left	Inf	12.4 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	17.4 %	1895	1895
				Arm 6 Ahead	Inf	71.5 %		
				Arm 7 Right	15.00	11.1 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 2: '2022 Base Flows - Weekday PM Peak (Peds Every Other Cycle)' (FG5: '2022 Base Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	26.3 %	1950	1950
				Arm 7 Ahead	Inf	63.4 %		
				Arm 8 Right	20.00	10.3 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.8 %	1847	1847
				Arm 8 Ahead	Inf	90.2 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	86.5 %	1757	1757
				Arm 6 Right	20.00	4.5 %		
				Arm 8 Left	Inf	9.0 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	17.5 %	1894	1894
				Arm 6 Ahead	Inf	71.5 %		
				Arm 7 Right	15.00	11.0 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2031 Base Flows - Weekday PM Peak (Peds Every Other Cycle)' (FG6: '2031 Base Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	25.9 %	1949	1949
				Arm 7 Ahead	Inf	63.4 %		
				Arm 8 Right	20.00	10.7 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.9 %	1847	1847
				Arm 8 Ahead	Inf	90.1 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	86.3 %	1757	1757
				Arm 6 Right	20.00	4.5 %		
				Arm 8 Left	Inf	9.3 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	17.3 %	1895	1895
				Arm 6 Ahead	Inf	71.5 %		
				Arm 7 Right	15.00	11.2 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2022 With Development Flows - Weekday PM Peak (Peds Every Other Cycle)' (FG8: '2022 With Development Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	21.7 %	1950	1950
				Arm 7 Ahead	Inf	68.0 %		
				Arm 8 Right	20.00	10.3 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.8 %	1847	1847
				Arm 8 Ahead	Inf	90.2 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	90.3 %	1759	1759
				Arm 6 Right	20.00	3.2 %		
				Arm 8 Left	Inf	6.5 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	23.4 %	1880	1880
				Arm 6 Ahead	Inf	66.3 %		
				Arm 7 Right	15.00	10.2 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 5: '2031 With Development Flows - Weekday PM Peak (Peds Every Other Cycle)' (FG9: '2031 With Development Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	21.5 %	1950	1950
				Arm 7 Ahead	Inf	67.9 %		
				Arm 8 Right	20.00	10.6 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.9 %	1847	1847
				Arm 8 Ahead	Inf	90.1 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	89.9 %	1759	1759
				Arm 6 Right	20.00	3.3 %		
				Arm 8 Left	Inf	6.8 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	22.7 %	1881	1881
				Arm 6 Ahead	Inf	66.8 %		
				Arm 7 Right	15.00	10.5 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2022 Base Flows - Weekday PM Peak (No Peds)' (FG5: '2022 Base Flows - PM Peak', Plan 2: 'Network Control Plan 2')

Junction: Blackmoorfoot Road/Park Road										
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	26.3 %	1950	1950		
				Arm 7 Ahead	Inf	63.4 %				
				Arm 8 Right	20.00	10.3 %				
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.8 %	1847	1847		
				Arm 8 Ahead	Inf	90.2 %				
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865		
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	86.5 %	1757	1757		
				Arm 6 Right	20.00	4.5 %				
				Arm 8 Left	Inf	9.0 %				
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	17.5 %	1894	1894		
				Arm 6 Ahead	Inf	71.5 %				
				Arm 7 Right	15.00	11.0 %				
5/1	Infinite Saturation Flow						Inf	Inf		
6/1	Infinite Saturation Flow						Inf	Inf		
7/1	Infinite Saturation Flow						Inf	Inf		
8/1	Infinite Saturation Flow						Inf	Inf		

Scenario 7: '2031 Base Flows - Weekday PM Peak (No Peds)' (FG6: '2031 Base Flows - PM Peak', Plan 2: 'Network Control Plan 2')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	25.9 %	1949	1949
				Arm 7 Ahead	Inf	63.4 %		
				Arm 8 Right	20.00	10.7 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.9 %	1847	1847
				Arm 8 Ahead	Inf	90.1 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	86.3 %	1757	1757
				Arm 6 Right	20.00	4.5 %		
				Arm 8 Left	Inf	9.3 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	17.3 %	1895	1895
				Arm 6 Ahead	Inf	71.5 %		
				Arm 7 Right	15.00	11.2 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2022 With Development Flows - Weekday PM Peak (No Peds)' (FG8: '2022 With Development Flows - PM Peak', Plan 2: 'Network Control Plan 2')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	21.7 %	1950	1950
				Arm 7 Ahead	Inf	68.0 %		
				Arm 8 Right	20.00	10.3 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.8 %	1847	1847
				Arm 8 Ahead	Inf	90.2 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	90.3 %	1759	1759
				Arm 6 Right	20.00	3.2 %		
				Arm 8 Left	Inf	6.5 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	23.4 %	1880	1880
				Arm 6 Ahead	Inf	66.3 %		
				Arm 7 Right	15.00	10.2 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 9: '2031 With Development Flows - Weekday PM Peak (No Peds)' (FG9: '2031 With Development Flows - PM Peak', Plan 2: 'Network Control Plan 2')

Junction: Blackmoorfoot Road/Park Road								
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 (Blackmoorfoot Road (n))	3.50	0.00	Y	Arm 6 Left	Inf	21.5 %	1950	1950
				Arm 7 Ahead	Inf	67.9 %		
				Arm 8 Right	20.00	10.6 %		
2/1 (Park Road West)	2.50	0.00	Y	Arm 7 Left	15.00	9.9 %	1847	1847
				Arm 8 Ahead	Inf	90.1 %		
2/2 (Park Road West)	2.50	0.00	N	Arm 5 Right	20.00	100.0 %	1865	1865
3/1 (Blackmoorfoot Road (s))	4.00	6.00	Y	Arm 5 Ahead	Inf	89.9 %	1759	1759
				Arm 6 Right	20.00	3.3 %		
				Arm 8 Left	Inf	6.8 %		
4/1 (Park Road)	3.50	0.00	Y	Arm 5 Left	10.00	22.7 %	1881	1881
				Arm 6 Ahead	Inf	66.8 %		
				Arm 7 Right	15.00	10.5 %		
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2017 Surveyed Flows - PM Peak '	16:30	17:30	01:00	
2: '2022 Growthed Flows - PM Peak '	16:30	17:30	01:00	F1*1.059
3: '2031 Growthed Flows - PM Peak '	16:30	17:30	01:00	F1*1.170
4: 'Committed Development Flows - PM Peak '	16:30	17:30	01:00	
5: '2022 Base Flows - PM Peak'	16:30	17:30	01:00	F2+F4
6: '2031 Base Flows - PM Peak'	16:30	17:30	01:00	F3+F4
7: 'Proposed Development Flows - PM Peak'	16:30	17:30	01:00	
8: '2022 With Development Flows - PM Peak'	16:30	17:30	01:00	F5+F7
9: '2031 With Development Flows - PM Peak'	16:30	17:30	01:00	F6+F7

Traffic Flows, Desired

FG1: '2017 Surveyed Flows - PM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	68	249	64	381
	B	90	0	33	304	427
	C	349	26	0	53	428
	D	61	251	39	0	351
	Tot.	500	345	321	421	1587

FG2: '2022 Growthed Flows - PM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	72	264	68	404
	B	95	0	35	322	452
	C	370	28	0	56	454
	D	65	266	41	0	372
	Tot.	530	366	340	446	1682

FG3: '2031 Growthed Flows - PM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	80	291	75	446
	B	105	0	39	356	500
	C	408	30	0	62	500
	D	71	294	46	0	411
	Tot.	584	404	376	493	1857

FG4: 'Committed Development Flows - PM Peak '
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	102	155	0	257
	B	120	0	0	0	120
	C	170	0	0	0	170
	D	0	0	0	0	0
	Tot.	290	102	155	0	547

FG5: '2022 Base Flows - PM Peak'
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	174	419	68	661
	B	215	0	35	322	572
	C	540	28	0	56	624
	D	65	266	41	0	372
	Tot.	820	468	495	446	2229

FG6: '2031 Base Flows - PM Peak'
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	182	446	75	703
	B	225	0	39	356	620
	C	578	30	0	62	670
	D	71	294	46	0	411
	Tot.	874	506	531	493	2404

FG7: 'Proposed Development Flows - PM Peak'
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	9	156	19	184
	B	15	0	0	0	15
	C	241	0	0	0	241
	D	29	0	0	0	29
	Tot.	285	9	156	19	469

FG8: '2022 With Development Flows - PM Peak'

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	183	575	87	845
	B	230	0	35	322	587
	C	781	28	0	56	865
	D	94	266	41	0	401
	Tot.	1105	477	651	465	2698

FG9: '2031 With Development Flows - PM Peak'

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	191	602	94	887
	B	240	0	39	356	635
	C	819	30	0	62	911
	D	100	294	46	0	440
	Tot.	1159	515	687	512	2873

Stage Timings

Scenario 1: '2017 Surveyed Flows - Weekday PM Peak' (FG1: '2017 Surveyed Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	19	14	4	11	6	8	4
Change Point	0	25	47	56	73	87	103

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	-	-	N/A	-	-		-	-	-	-	-	-	86.4%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	86.4%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	30	-	381	1941	555	68.7%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	40	8	427	1847:1865	620+166	54.3 : 54.3%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	30	-	428	1755	501	85.4%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	22	-	351	1895	406	86.4%
5/1		U	N/A	N/A	-		-	-	-	500	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	345	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	321	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	421	Inf	Inf	0.0%

LinSig V1 style report

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	-	-	77	49	3	8.1	7.3	0.2	15.6	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	77	49	3	8.1	7.3	0.2	15.6	-	-	-	-
1/1	381	381	-	-	-	1.9	1.1	-	3.0	28.2	5.7	1.1	6.8
2/1+2/2	427	427	38	49	3	1.6	0.6	0.2	2.3	19.7	4.3	0.6	4.9
3/1	428	428	-	-	-	2.3	2.7	-	5.0	41.9	6.9	2.7	9.6
4/1	351	351	39	0	0	2.4	2.9	0.1	5.3	54.7	5.8	2.9	8.7
5/1	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	345	345	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	321	321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 112			
PRC for Signalised Lanes (%): 4.1										Total Delay for Signalised Lanes (pcuHr): 15.65			
PRC Over All Lanes (%): 4.1										Total Delay Over All Lanes (pcuHr): 15.65			

Stage Timings

Scenario 2: '2022 Base Flows - Weekday PM Peak (Peds Every Other Cycle)' (FG5: '2022 Base Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	58	31	4	45	6	30	4
Change Point	0	64	103	112	163	177	215

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	-	-	N/A	-	-		-	-	-	-	-	-	76.4%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	76.4%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	103	-	661	1950	914	72.3%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	79	8	572	1847:1865	468+282	76.4 : 76.4%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	103	-	624	1757	824	75.8%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	61	-	372	1894	508	73.2%
5/1		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	468	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	495	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	446	Inf	Inf	0.0%

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	-	-	142	110	4	17.6	5.8	0.6	24.0	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	142	110	4	17.6	5.8	0.6	24.0	-	-	-	-
1/1	661	661	-	-	-	4.4	1.3	-	5.7	31.2	18.2	1.3	19.5
2/1+2/2	572	572	101	110	4	5.1	1.6	0.5	7.2	45.4	11.3	1.6	12.9
3/1	624	624	-	-	-	4.3	1.5	-	5.8	33.7	17.7	1.5	19.2
4/1	372	372	41	0	0	3.7	1.3	0.1	5.2	50.3	10.5	1.3	11.9
5/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	468	468	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	495	495	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	446	446	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 224			
PRC for Signalled Lanes (%):				17.9	Total Delay for Signalled Lanes (pcuHr):				23.99				
PRC Over All Lanes (%):				17.9	Total Delay Over All Lanes (pcuHr):				23.99				

Stage Timings

Scenario 3: '2031 Base Flows - Weekday PM Peak (Peds Every Other Cycle)' (FG6: '2031 Base Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	65	22	10	34	6	37	4
Change Point	0	71	101	116	156	170	215

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	-	-	N/A	-	-		-	-	-	-	-	-	84.6%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	84.6%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	99	-	703	1949	879	80.0%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	83	14	620	1847:1865	469+267	84.2 : 84.2%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	99	-	670	1757	792	84.6%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	59	-	411	1895	486	84.5%
5/1		U	N/A	N/A	-		-	-	-	874	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	506	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	493	Inf	Inf	0.0%

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	-	-	99	160	11	21.1	9.7	0.7	31.5	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	99	160	11	21.1	9.7	0.7	31.5	-	-	-	-
1/1	703	703	-	-	-	5.3	2.0	-	7.3	37.4	22.3	2.0	24.2
2/1+2/2	620	620	53	160	11	5.6	2.5	0.5	8.6	50.2	15.0	2.5	17.6
3/1	670	670	-	-	-	5.3	2.6	-	7.9	42.4	21.8	2.6	24.4
4/1	411	411	46	0	0	5.0	2.5	0.1	7.7	67.1	13.0	2.5	15.5
5/1	874	874	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	506	506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	531	531	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 224			
PRC for Signalled Lanes (%): 6.4										Total Delay for Signalled Lanes (pcuHr): 31.49			
PRC Over All Lanes (%): 6.4										Total Delay Over All Lanes (pcuHr): 31.49			

Stage Timings

Scenario 4: '2022 With Development Flows - Weekday PM Peak (Peds Every Other Cycle)' (FG8: '2022 With Development Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	59	26	6	50	6	27	4
Change Point	0	65	99	110	166	180	215

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	-	-	N/A	-	-		-	-	-	-	-	-	99.3%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	99.3%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	109	-	845	1950	966	87.4%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	73	10	587	1847:1865	360+232	99.3 : 99.3%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	109	-	865	1759	872	99.2%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	53	-	401	1880	450	89.0%
5/1		U	N/A	N/A	-		-	-	-	1105	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	477	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	651	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	465	Inf	Inf	0.0%

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	-	-	75	133	63	23.6	31.1	0.6	55.3	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	75	133	63	23.6	31.1	0.6	55.3	-	-	-	-
1/1	845	845	-	-	-	6.0	3.3	-	9.3	39.6	26.1	3.3	29.4
2/1+2/2	587	587	34	133	63	6.2	11.1	0.5	17.8	109.1	12.8	11.1	23.8
3/1	865	865	-	-	-	6.9	13.1	-	20.1	83.5	29.6	13.1	42.7
4/1	401	401	41	0	0	4.5	3.6	0.1	8.2	73.6	12.5	3.6	16.0
5/1	1105	1105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	477	477	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	651	651	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	465	465	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										PRC for Signalled Lanes (%): -10.3 PRC Over All Lanes (%): -10.3	Total Delay for Signalled Lanes (pcuHr): 55.34 Total Delay Over All Lanes (pcuHr): 55.34	Cycle Time (s): 224	

Stage Timings

Scenario 5: '2031 With Development Flows - Weekday PM Peak (Peds Every Other Cycle)' (FG9: '2031 With Development Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	3	4	1	2	3	4
Duration	60	28	6	45	6	28	5
Change Point	0	66	102	113	164	178	214

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	-	-	N/A	-	-		-	-	-	-	-	-	108.4%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	108.4%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		2	105	-	887	1950	931	95.2%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	2	77	11	635	1847.1865	366+222	107.9 : 107.9%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		2	105	-	911	1759	840	108.4%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		2	56	-	440	1881	466	94.4%
5/1		U	N/A	N/A	-		-	-	-	1159	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	515	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	687	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	512	Inf	Inf	0.0%

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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	-	-	65	142	62	38.9	83.0	0.7	122.6	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	65	142	62	38.9	83.0	0.7	122.6	-	-	-	-
1/1	887	887	-	-	-	7.0	7.5	-	14.5	58.7	29.3	7.5	36.8
2/1+2/2	635	589	19	142	62	10.2	28.7	0.6	39.5	223.7	19.4	28.7	48.1
3/1	911	840	-	-	-	16.8	40.9	-	57.7	228.2	38.6	40.9	79.6
4/1	440	440	46	0	0	4.9	5.8	0.1	10.9	89.4	13.3	5.8	19.2
5/1	1078	1078	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	684	684	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	481	481	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 224			
PRC for Signalised Lanes (%):				-20.5	Total Delay for Signalised Lanes (pcuHr):				122.58				
PRC Over All Lanes (%):				-20.5	Total Delay Over All Lanes (pcuHr):				122.58				

Stage Timings

Scenario 6: '2022 Base Flows - Weekday PM Peak (No Peds)' (FG5: '2022 Base Flows - PM Peak', Plan 2: 'Network Control Plan 2')

Stage	1	3	4
Duration	55	34	4
Change Point	0	61	103

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	-	-	N/A	-	-		-	-	-	-	-	-	71.0%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	71.0%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		1	55	-	661	1950	975	67.8%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	1	43	4	572	1847:1865	510+307	70.0 : 70.0%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		1	55	-	624	1757	879	71.0%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		1	34	-	372	1894	570	65.3%
5/1		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	468	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	495	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	446	Inf	Inf	0.0%

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	-	-	185	67	4	15.7	4.3	0.6	20.7	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	185	67	4	15.7	4.3	0.6	20.7	-	-	-	-
1/1	661	661	-	-	-	3.9	1.0	-	4.9	26.9	15.4	1.0	16.5
2/1+2/2	572	572	144	67	4	4.6	1.2	0.5	6.3	39.6	10.4	1.2	11.5
3/1	624	624	-	-	-	3.8	1.2	-	5.0	28.7	14.9	1.2	16.1
4/1	372	372	41	0	0	3.4	0.9	0.1	4.5	43.2	9.9	0.9	10.9
5/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	468	468	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	495	495	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	446	446	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 112			
PRC for Signalised Lanes (%): 26.7 PRC Over All Lanes (%): 26.7										Total Delay for Signalised Lanes (pcuHr): 20.66 Total Delay Over All Lanes(pcuHr): 20.66			

Stage Timings

Scenario 7: '2031 Base Flows - Weekday PM Peak (No Peds)' (FG6: '2031 Base Flows - PM Peak', Plan 2: 'Network Control Plan 2')

Stage	1	3	4
Duration	54	35	4
Change Point	0	60	103

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	-	-	N/A	-	-		-	-	-	-	-	-	77.7%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	77.7%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		1	54	-	703	1949	957	73.5%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	1	44	4	620	1847:1865	515+293	76.7 : 76.7%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		1	54	-	670	1757	863	77.7%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		1	35	-	411	1895	570	72.2%
5/1		U	N/A	N/A	-		-	-	-	874	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	506	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	493	Inf	Inf	0.0%

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	-	-	165	102	4	17.7	6.0	0.7	24.4	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	165	102	4	17.7	6.0	0.7	24.4	-	-	-	-
1/1	703	703	-	-	-	4.4	1.4	-	5.8	29.7	17.4	1.4	18.7
2/1+2/2	620	620	119	102	4	5.1	1.6	0.6	7.3	42.5	12.3	1.6	13.9
3/1	670	670	-	-	-	4.4	1.7	-	6.1	32.6	17.1	1.7	18.8
4/1	411	411	46	0	0	3.8	1.3	0.1	5.2	45.6	11.3	1.3	12.6
5/1	874	874	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	506	506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	531	531	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 112			
PRC for Signalled Lanes (%):				15.9	Total Delay for Signalled Lanes (pcuHr):				24.39				
PRC Over All Lanes (%):				15.9	Total Delay Over All Lanes (pcuHr):				24.39				

Stage Timings

Scenario 8: '2022 With Development Flows - Weekday PM Peak (No Peds)' (FG8: '2022 With Development Flows - PM Peak', Plan 2: 'Network Control Plan 2')

Stage	1	3	4
Duration	60	27	6
Change Point	0	66	101

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	-	-	N/A	-	-		-	-	-	-	-	-	90.3%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	90.3%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		1	60	-	845	1950	1062	79.6%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	1	38	6	587	1847:1865	395+255	90.3 : 90.3%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		1	60	-	865	1759	958	90.3%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		1	27	-	401	1880	459	87.3%
5/1		U	N/A	N/A	-		-	-	-	1105	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	477	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	651	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	465	Inf	Inf	0.0%

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	-	-	82	150	39	20.4	13.4	0.6	34.4	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	82	150	39	20.4	13.4	0.6	34.4	-	-	-	-
1/1	845	845	-	-	-	4.8	1.9	-	6.7	28.6	20.9	1.9	22.8
2/1+2/2	587	587	41	150	39	5.6	4.1	0.5	10.2	62.9	11.8	4.1	15.9
3/1	865	865	-	-	-	5.5	4.3	-	9.7	40.6	24.0	4.3	28.3
4/1	401	401	41	0	0	4.5	3.1	0.1	7.7	69.1	11.9	3.1	15.0
5/1	1105	1105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	477	477	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	651	651	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	465	465	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 112			
PRC for Signalised Lanes (%):				-0.3	Total Delay for Signalised Lanes (pcuHr):				34.42				
PRC Over All Lanes (%):				-0.3	Total Delay Over All Lanes (pcuHr):				34.42				

Stage Timings

Scenario 9: '2031 With Development Flows - Weekday PM Peak (No Peds)' (FG9: '2031 With Development Flows - PM Peak', Plan 2: 'Network Control Plan 2')

Stage	1	3	4
Duration	58	29	6
Change Point	0	64	101

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	-	-	N/A	-	-		-	-	-	-	-	-	98.3%
Blackmoorfoot Road/Park Road	-	-	N/A	-	-		-	-	-	-	-	-	98.3%
1/1	Blackmoorfoot Road (n) Left Ahead Right	U	N/A	N/A	B		1	58	-	887	1950	1027	86.3%
2/1+2/2	Park Road West Right Left Ahead	U+O	N/A	N/A	D	E	1	40	6	635	1847:1865	404+246	97.7 : 97.7%
3/1	Blackmoorfoot Road (s) Ahead Right Left	U	N/A	N/A	A		1	58	-	911	1759	927	98.3%
4/1	Park Road Left Ahead Right	O	N/A	N/A	C		1	29	-	440	1881	483	91.1%
5/1		U	N/A	N/A	-		-	-	-	1159	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	515	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	687	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	512	Inf	Inf	0.0%

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	-	-	77	150	59	23.1	28.4	0.7	52.2	-	-	-	-
Blackmoorfoot Road/Park Road	-	-	77	150	59	23.1	28.4	0.7	52.2	-	-	-	-
1/1	887	887	-	-	-	5.7	3.0	-	8.7	35.3	23.9	3.0	26.9
2/1+2/2	635	635	31	150	59	6.0	9.4	0.6	16.0	90.9	13.5	9.4	22.9
3/1	911	911	-	-	-	6.6	11.7	-	18.3	72.2	27.6	11.7	39.3
4/1	440	440	46	0	0	4.8	4.3	0.1	9.2	75.6	13.2	4.3	17.5
5/1	1159	1159	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	515	515	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	687	687	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	512	512	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 112			
PRC for Signalled Lanes (%):				-9.2	Total Delay for Signalled Lanes (pcuHr):				52.24				
PRC Over All Lanes (%):				-9.2	Total Delay Over All Lanes (pcuHr):				52.24				

APPENDIX 2

LINSIG Output - A62 Manchester Road/Blackmoorfoot Road

User and Project Details

Project:	Fireworks Factory, Blackmoorfoot Road, Huddersfield
Title:	A62 Manchester Road-Blackmoorfoot Road – AM Peak
Location:	Huddersfield
Additional detail:	
File name:	A62 Manchester Road-Blackmoorfoot Road - March 2021 - AM Peak.lsg3x
Author:	
Company:	Croft
Address:	

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	Filter	B	4	0
E	Dummy		7	7
F	Dummy		7	7

Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		-	6	6	6	3
	B	-		6	-	-	3
	C	5	5		-	-	3
	D	0	-	-		-	3
	E	0	-	-	2		3
	F	2	2	2	2	2	

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
	1		6
	2	5	
	3	5	X

Phases in Stage

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

Give-Way Lane Input Data

Junction: A62 Manchester Road-Blackmoorfoot Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (A62 Manchester Road (e))	7/1 (Right)	1439	0	3/1	1.09	All	1.00	1.00	0.50	1	1.00
	6/1 (Left)	1439	0	1/2	1.09	To 6/1 (Ahead)					
2/1 (Blackmoorfoot Road)	7/1 (Ahead)	1439	0	1/2	1.09	All	-	-	-	-	-
				3/1	1.09	All					
3/1 (A62 Manchester Road (w))	5/1 (Right)	1439	0	1/1	1.09	To 5/1 (Left)	2.00	2.00	0.50	2	2.00
				1/2	1.09	To 6/1 (Ahead)					

Lane Input Data

Junction: A62 Manchester Road-Blackmoorfoot Road												
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 (A62 Manchester Road (e))	U	B D	2	3	60.0	Geom	-	3.50	3.00	Y	Arm 5 Left	20.00
1/2 (A62 Manchester Road (e))	O	B	2	3	8.0	Geom	-	3.50	3.00	N	Arm 6 Ahead Arm 7 Right	Inf Inf
2/1 (Blackmoorfoot Road)	O	C	2	3	2.0	Geom	-	3.80	0.00	Y	Arm 6 Left Arm 7 Ahead	6.00 Inf
2/2 (Blackmoorfoot Road)	U		2	3	60.0	Geom	-	3.50	0.00	N	Arm 4 Right Arm 4 Ahead	15.00 Inf
3/1 (A62 Manchester Road (w))	O	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Right Arm 7 Left	10.00 Inf
4/1	U		2	3	5.0	Inf	-	-	-	-	-	-
5/1	U		2	3	5.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Birkhouse Lane)	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows**Scenario 1: '2022 Base Flows - AM Peak '** (FG1: '2022 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A62 Manchester Road-Blackmoorfoot Road								
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 (A62 Manchester Road (e))	3.50	3.00	Y	Arm 5 Left	20.00	100.0 %	1711	1711
1/2 (A62 Manchester Road (e))	3.50	3.00	N	Arm 6 Ahead	Inf	82.2 %	1979	1979
				Arm 7 Right	Inf	17.8 %		
2/1 (Blackmoorfoot Road)	3.80	0.00	Y	Arm 6 Left	6.00	4.8 %	1972	1972
				Arm 7 Ahead	Inf	95.2 %		
2/2 (Blackmoorfoot Road)	3.50	0.00	N	Arm 4 Right	15.00	100.0 %	1914	1914
				Arm 4 Ahead	Inf	84.3 %	1962	1962
3/1 (A62 Manchester Road (w))	3.50	0.00	Y	Arm 5 Right	10.00	1.1 %		
				Arm 7 Left	Inf	14.6 %		
4/1			Infinite Saturation Flow				Inf	Inf
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1 (Birkhouse Lane Lane 1)			Infinite Saturation Flow				Inf	Inf

Scenario 2: '2031 Base Flows - AM Peak ' (FG3: '2031 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A62 Manchester Road-Blackmoorfoot Road								
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 (A62 Manchester Road (e))	3.50	3.00	Y	Arm 5 Left	20.00	100.0 %	1711	1711
1/2 (A62 Manchester Road (e))	3.50	3.00	N	Arm 6 Ahead	Inf	82.4 %	1979	1979
				Arm 7 Right	Inf	17.6 %		
2/1 (Blackmoorfoot Road)	3.80	0.00	Y	Arm 6 Left	6.00	4.6 %	1972	1972
				Arm 7 Ahead	Inf	95.4 %		
2/2 (Blackmoorfoot Road)	3.50	0.00	N	Arm 4 Right	15.00	100.0 %	1914	1914
				Arm 4 Ahead	Inf	84.3 %	1962	1962
3/1 (A62 Manchester Road (w))	3.50	0.00	Y	Arm 5 Right	10.00	1.0 %		
				Arm 7 Left	Inf	14.7 %		
4/1			Infinite Saturation Flow				Inf	Inf
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1 (Birkhouse Lane Lane 1)			Infinite Saturation Flow				Inf	Inf

Scenario 3: '2022 With Development Flows - AM Peak ' (FG5: '2022 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A62 Manchester Road-Blackmoorfoot Road								
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 (A62 Manchester Road (e))	3.50	3.00	Y	Arm 5 Left	20.00	100.0 %	1711	1711
1/2 (A62 Manchester Road (e))	3.50	3.00	N	Arm 6 Ahead	Inf	82.2 %	1979	1979
				Arm 7 Right	Inf	17.8 %		
2/1 (Blackmoorfoot Road)	3.80	0.00	Y	Arm 6 Left	6.00	4.8 %	1972	1972
				Arm 7 Ahead	Inf	95.2 %		
2/2 (Blackmoorfoot Road)	3.50	0.00	N	Arm 4 Right	15.00	100.0 %	1914	1914
				Arm 4 Ahead	Inf	84.3 %	1962	1962
3/1 (A62 Manchester Road (w))	3.50	0.00	Y	Arm 5 Right	10.00	1.1 %		
				Arm 7 Left	Inf	14.6 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1 (Birkhouse Lane Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 4: '2031 With Development Flows - AM Peak ' (FG7: '2031 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A62 Manchester Road-Blackmoorfoot Road								
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 (A62 Manchester Road (e))	3.50	3.00	Y	Arm 5 Left	20.00	100.0 %	1711	1711
1/2 (A62 Manchester Road (e))	3.50	3.00	N	Arm 6 Ahead	Inf	82.4 %	1979	1979
				Arm 7 Right	Inf	17.6 %		
2/1 (Blackmoorfoot Road)	3.80	0.00	Y	Arm 6 Left	6.00	4.6 %	1972	1972
				Arm 7 Ahead	Inf	95.4 %		
2/2 (Blackmoorfoot Road)	3.50	0.00	N	Arm 4 Right	15.00	100.0 %	1914	1914
				Arm 4 Ahead	Inf	84.3 %	1962	1962
3/1 (A62 Manchester Road (w))	3.50	0.00	Y	Arm 5 Right	10.00	1.0 %		
				Arm 7 Left	Inf	14.7 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1 (Birkhouse Lane Lane 1)				Infinite Saturation Flow			Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base Flows - AM Peak '	07:45	08:45	01:00	
2: '2022 Base Flows - PM Peak '	16:30	17:30	01:00	
3: '2031 Base Flows - AM Peak '	07:45	08:45	01:00	
4: '2031 Base Flows - PM Peak '	16:30	17:30	01:00	
5: '2022 With Development Flows - AM Peak '	07:45	08:45	01:00	
6: '2022 With Development Flows - PM Peak '	16:30	17:30	01:00	
7: '2031 With Development Flows - AM Peak '	07:45	08:45	01:00	
8: '2031 With Development Flows - PM Peak '	16:30	17:30	01:00	

Traffic Flows, Desired

FG1: '2022 Base Flows - AM Peak '

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	536	7	93	636
	B	290	0	319	63	672
	C	16	382	0	320	718
	D	0	0	0	0	0
	Tot.	306	918	326	476	2026

FG2: '2022 Base Flows - PM Peak '

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	406	25	75	506
	B	493	0	598	50	1141
	C	21	362	0	200	583
	D	0	0	0	0	0
	Tot.	514	768	623	325	2230

FG3: '2031 Base Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	590	7	103	700
	B	322	0	344	69	735
	C	17	413	0	351	781
	D	0	0	0	0	0
	Tot.	339	1003	351	523	2216

FG4: '2031 Base Flows - PM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	448	26	83	557
	B	550	0	645	55	1250
	C	22	386	0	220	628
	D	0	0	0	0	0
	Tot.	572	834	671	358	2435

FG5: '2022 With Development Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	536	7	93	636
	B	290	0	433	63	786
	C	16	637	0	320	973
	D	0	0	0	0	0
	Tot.	306	1173	440	476	2395

FG6: '2022 With Development Flows - PM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	406	25	75	506
	B	493	0	839	50	1382
	C	21	518	0	200	739
	D	0	0	0	0	0
	Tot.	514	924	864	325	2627

FG7: '2031 With Development Flows - AM Peak '

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	590	7	103	700
	B	322	0	459	69	850
	C	17	667	0	351	1035
	Tot.	339	1257	466	523	2585

FG8: '2031 With Development Flows - PM Peak '

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	448	26	83	557
	B	550	0	887	55	1492
	C	22	542	0	220	784
	Tot.	572	990	913	358	2833

Stage Timings

Scenario 1: '2022 Base Flows - AM Peak ' (FG1: '2022 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	27	7	18
Change Point	9	41	54

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	-	-	N/A	-	-		-	-	-	-	-	-	77.6%
A62 Manchester Road-Blackmoorfoot Road	-	-	N/A	-	-		-	-	-	-	-	-	77.6%
1/1+1/2	A62 Manchester Road (e) Left Ahead Right	U+O	N/A	N/A	B	D	1	50:27	23	672	1711:1979	471+521	67.7 : 67.7%
2/2+2/1	Blackmoorfoot Road Right Left Ahead	U+O	N/A	N/A	C -		1	27	-	718	1914:1972	492+433	77.6 : 77.6%
3/1	A62 Manchester Road (w) Ahead Right Left	O	N/A	N/A	A		1	27	-	636	1962	845	75.3%
4/1		U	N/A	N/A	-		-	-	-	918	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
7/1	Birkhouse Lane	U	N/A	N/A	-		-	-	-	476	Inf	Inf	0.0%

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	-	-	98	308	0	6.6	4.2	0.2	11.1	-	-	-	-
A62 Manchester Road-Blackmoorfoot Road	-	-	98	308	0	6.6	4.2	0.2	11.1	-	-	-	-
1/1+1/2	672	672	63	0	0	1.4	1.0	0.2	2.7	14.5	4.4	1.0	5.5
2/2+2/1	718	718	28	308	0	2.5	1.7	-	4.2	20.9	9.2	1.7	10.9
3/1	636	636	7	0	0	2.8	1.5	0.0	4.3	24.1	9.5	1.5	11.0
4/1	918	918	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	476	476	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 65			
										Total Delay for Signalled Lanes (pcuHr): 11.14			
										Total Delay Over All Lanes(pcuHr): 11.14			
										PRC for Signalled Lanes (%): 15.9			
										PRC Over All Lanes (%): 15.9			

Stage Timings

Scenario 2: '2031 Base Flows - AM Peak ' (FG3: '2031 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	28	7	17
Change Point	19	52	0

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	-	-	N/A	-	-		-	-	-	-	-	-	87.1%
A62 Manchester Road-Blackmoorfoot Road	-	-	N/A	-	-		-	-	-	-	-	-	87.1%
1/1+1/2	A62 Manchester Road (e) Left Ahead Right	U+O	N/A	N/A	B	D	1	50:28	22	735	1711:1979	434+493	79.3 : 79.3%
2/2+2/1	Blackmoorfoot Road Right Left Ahead	U+O	N/A	N/A	C -		1	26	-	781	1914:1972	474+422	87.1 : 87.1%
3/1	A62 Manchester Road (w) Ahead Right Left	O	N/A	N/A	A		1	28	-	700	1962	875	80.0%
4/1		U	N/A	N/A	-		-	-	-	1003	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	351	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%
7/1	Birkhouse Lane	U	N/A	N/A	-		-	-	-	523	Inf	Inf	0.0%

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	-	-	97	347	0	7.6	7.0	0.3	15.0	-	-	-	-
A62 Manchester Road-Blackmoorfoot Road	-	-	97	347	0	7.6	7.0	0.3	15.0	-	-	-	-
1/1+1/2	735	735	69	0	0	1.6	1.9	0.3	3.7	18.4	4.9	1.9	6.8
2/2+2/1	781	781	21	347	0	3.0	3.2	-	6.2	28.8	10.9	3.2	14.1
3/1	700	700	7	0	0	3.0	2.0	0.0	5.0	25.6	10.7	2.0	12.6
4/1	1003	1003	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	351	351	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	523	523	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 65			
										Total Delay for Signalled Lanes (pcuHr): 14.96			
										Total Delay Over All Lanes (pcuHr): 14.96			
										PRC for Signalled Lanes (%): 3.3			
										PRC Over All Lanes (%): 3.3			

Stage Timings

Scenario 3: '2022 With Development Flows - AM Peak ' (FG5: '2022 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	24	7	21
Change Point	2	31	44

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	-	-	N/A	-	-		-	-	-	-	-	-	100.1%
A62 Manchester Road-Blackmoorfoot Road	-	-	N/A	-	-		-	-	-	-	-	-	100.1%
1/1+1/2	A62 Manchester Road (e) Left Ahead Right	U+O	N/A	N/A	B	D	1	50:24	26	786	1711:1979	487+397	88.8 : 88.8%
2/2+2/1	Blackmoorfoot Road Right Left Ahead	U+O	N/A	N/A	C -		1	30	-	973	1914:1972	637+336	100.1 : 100.1%
3/1	A62 Manchester Road (w) Ahead Right Left	O	N/A	N/A	A		1	24	-	636	1962	755	84.3%
4/1		U	N/A	N/A	-		-	-	-	1173	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	440	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
7/1	Birkhouse Lane	U	N/A	N/A	-		-	-	-	476	Inf	Inf	0.0%

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	-	-	93	313	0	9.0	22.0	0.3	31.3	-	-	-	-
A62 Manchester Road-Blackmoorfoot Road	-	-	93	313	0	9.0	22.0	0.3	31.3	-	-	-	-
1/1+1/2	786	786	63	0	0	1.7	3.7	0.3	5.7	26.2	4.8	3.7	8.5
2/2+2/1	973	972	23	313	0	4.1	15.7	-	19.8	73.3	16.6	15.7	32.3
3/1	636	636	7	0	0	3.2	2.6	0.0	5.8	32.8	10.4	2.6	13.0
4/1	1173	1173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	440	440	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	476	476	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 65			
										Total Delay for Signalled Lanes (pcuHr): 31.32			
										Total Delay Over All Lanes(pcuHr): 31.32			
										PRC for Signalled Lanes (%): -11.2			
										PRC Over All Lanes (%): -11.2			

Stage Timings

Scenario 4: '2031 With Development Flows - AM Peak ' (FG7: '2031 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	26	7	19
Change Point	10	41	54

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	-	-	N/A	-	-		-	-	-	-	-	-	113.0%
A62 Manchester Road-Blackmoorfoot Road	-	-	N/A	-	-		-	-	-	-	-	-	113.0%
1/1+1/2	A62 Manchester Road (e) Left Ahead Right	U+O	N/A	N/A	B	D	1	50:26	24	850	1711:1979	470+401	97.6 : 97.6%
2/2+2/1	Blackmoorfoot Road Right Left Ahead	U+O	N/A	N/A	C -		1	28	-	1035	1914:1972	590+326	113.0 : 113.0%
3/1	A62 Manchester Road (w) Ahead Right Left	O	N/A	N/A	A		1	26	-	700	1962	815	85.9%
4/1		U	N/A	N/A	-		-	-	-	1257	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	466	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%
7/1	Birkhouse Lane	U	N/A	N/A	-		-	-	-	523	Inf	Inf	0.0%

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	-	-	69	324	9	14.0	76.8	0.3	91.1	-	-	-	-
A62 Manchester Road-Blackmoorfoot Road	-	-	69	324	9	14.0	76.8	0.3	91.1	-	-	-	-
1/1+1/2	850	850	60	0	9	1.9	10.2	0.3	12.4	52.6	5.2	10.2	15.4
2/2+2/1	1035	916	2	324	0	8.8	63.7	-	72.4	251.9	51.5	63.7	115.1
3/1	700	700	7	0	0	3.4	2.9	0.0	6.3	32.2	11.5	2.9	14.4
4/1	1180	1180	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	466	466	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 65			
										Total Delay for Signalled Lanes (pcuHr): 91.11			
										Total Delay Over All Lanes(pcuHr): 91.11			
										PRC for Signalled Lanes (%): -25.6			
										PRC Over All Lanes (%): -25.6			

User and Project Details

Project:	Fireworks Factory, Blackmoorfoot Road
Title:	A62 Manchester Road-Blackmoorfoot Road – PM Peak
Location:	Huddersfield
Additional detail:	
File name:	A62 Manchester Road-Blackmoorfoot Road - March 2021 - PM Peak.lsg3x
Author:	
Company:	Croft
Address:	

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	Filter	B	4	0
E	Dummy		7	7
F	Dummy		7	7

Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		-	6	6	6	3
	B	-		6	-	-	3
	C	5	5		-	-	3
	D	0	-	-		-	3
	E	0	-	-	2		3
	F	2	2	2	2	2	

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
	1		6
	2	5	
	3	5	X

Phases in Stage

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

Give-Way Lane Input Data

Junction: A62 Manchester Road-Blackmoorfoot Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (A62 Manchester Road (e))	7/1 (Right)	1439	0	3/1	1.09	All	1.00	1.00	0.50	1	1.00
	6/1 (Left)	1439	0	1/2	1.09	To 6/1 (Ahead)					
2/1 (Blackmoorfoot Road)	7/1 (Ahead)	1439	0	1/2	1.09	All	-	-	-	-	-
				3/1	1.09	All					
3/1 (A62 Manchester Road (w))	5/1 (Right)	1439	0	1/1	1.09	To 5/1 (Left)	2.00	2.00	0.50	2	2.00
				1/2	1.09	To 6/1 (Ahead)					

Lane Input Data

Junction: A62 Manchester Road-Blackmoorfoot Road												
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 (A62 Manchester Road (e))	U	B D	2	3	60.0	Geom	-	3.50	3.00	Y	Arm 5 Left	20.00
1/2 (A62 Manchester Road (e))	O	B	2	3	8.0	Geom	-	3.50	3.00	N	Arm 6 Ahead Arm 7 Right	Inf Inf
2/1 (Blackmoorfoot Road)	O	C	2	3	2.0	Geom	-	3.80	0.00	Y	Arm 6 Left Arm 7 Ahead	6.00 Inf
2/2 (Blackmoorfoot Road)	U		2	3	60.0	Geom	-	3.50	0.00	N	Arm 4 Right Arm 4 Ahead	15.00 Inf
3/1 (A62 Manchester Road (w))	O		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Right Arm 7 Left	10.00 Inf
4/1	U		2	3	5.0	Inf	-	-	-	-	-	-
5/1	U		2	3	5.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Birkhouse Lane)	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows**Scenario 1: '2022 Base Flows - PM Peak '** (FG1: '2022 Base Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A62 Manchester Road-Blackmoorfoot Road								
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 (A62 Manchester Road (e))	3.50	3.00	Y	Arm 5 Left	20.00	100.0 %	1711	1711
1/2 (A62 Manchester Road (e))	3.50	3.00	N	Arm 6 Ahead	Inf	90.8 %	1979	1979
				Arm 7 Right	Inf	9.2 %		
2/1 (Blackmoorfoot Road)	3.80	0.00	Y	Arm 6 Left	6.00	9.5 %	1949	1949
				Arm 7 Ahead	Inf	90.5 %		
2/2 (Blackmoorfoot Road)	3.50	0.00	N	Arm 4 Right	15.00	100.0 %	1914	1914
				Arm 4 Ahead	Inf	80.2 %	1951	1951
3/1 (A62 Manchester Road (w))	3.50	0.00	Y	Arm 5 Right	10.00	4.9 %		
				Arm 7 Left	Inf	14.8 %		
4/1			Infinite Saturation Flow				Inf	Inf
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1 (Birkhouse Lane Lane 1)			Infinite Saturation Flow				Inf	Inf

Scenario 2: '2031 Base Flows - PM Peak ' (FG2: '2031 Base Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A62 Manchester Road-Blackmoorfoot Road								
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 (A62 Manchester Road (e))	3.50	3.00	Y	Arm 5 Left	20.00	100.0 %	1711	1711
1/2 (A62 Manchester Road (e))	3.50	3.00	N	Arm 6 Ahead	Inf	90.9 %	1979	1979
				Arm 7 Right	Inf	9.1 %		
2/1 (Blackmoorfoot Road)	3.80	0.00	Y	Arm 6 Left	6.00	9.1 %	1951	1951
				Arm 7 Ahead	Inf	90.9 %		
2/2 (Blackmoorfoot Road)	3.50	0.00	N	Arm 4 Right	15.00	100.0 %	1914	1914
				Arm 4 Ahead	Inf	80.4 %	1951	1951
3/1 (A62 Manchester Road (w))	3.50	0.00	Y	Arm 5 Right	10.00	4.7 %		
				Arm 7 Left	Inf	14.9 %		
4/1			Infinite Saturation Flow				Inf	Inf
5/1			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1 (Birkhouse Lane Lane 1)			Infinite Saturation Flow				Inf	Inf

Scenario 3: '2022 With Development Flows - PM Peak ' (FG3: '2022 With Development Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A62 Manchester Road-Blackmoorfoot Road								
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 (A62 Manchester Road (e))	3.50	3.00	Y	Arm 5 Left	20.00	100.0 %	1711	1711
1/2 (A62 Manchester Road (e))	3.50	3.00	N	Arm 6 Ahead	Inf	90.8 %	1979	1979
				Arm 7 Right	Inf	9.2 %		
2/1 (Blackmoorfoot Road)	3.80	0.00	Y	Arm 6 Left	6.00	9.5 %	1949	1949
				Arm 7 Ahead	Inf	90.5 %		
2/2 (Blackmoorfoot Road)	3.50	0.00	N	Arm 4 Right	15.00	100.0 %	1914	1914
				Arm 4 Ahead	Inf	80.2 %	1951	1951
3/1 (A62 Manchester Road (w))	3.50	0.00	Y	Arm 5 Right	10.00	4.9 %		
				Arm 7 Left	Inf	14.8 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1 (Birkhouse Lane Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 4: '2031 With Development Flows - PM Peak ' (FG4: '2031 With Development Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A62 Manchester Road-Blackmoorfoot Road								
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 (A62 Manchester Road (e))	3.50	3.00	Y	Arm 5 Left	20.00	100.0 %	1711	1711
1/2 (A62 Manchester Road (e))	3.50	3.00	N	Arm 6 Ahead	Inf	90.9 %	1979	1979
				Arm 7 Right	Inf	9.1 %		
2/1 (Blackmoorfoot Road)	3.80	0.00	Y	Arm 6 Left	6.00	9.1 %	1951	1951
				Arm 7 Ahead	Inf	90.9 %		
2/2 (Blackmoorfoot Road)	3.50	0.00	N	Arm 4 Right	15.00	100.0 %	1914	1914
				Arm 4 Ahead	Inf	80.4 %	1951	1951
3/1 (A62 Manchester Road (w))	3.50	0.00	Y	Arm 5 Right	10.00	4.7 %		
				Arm 7 Left	Inf	14.9 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1 (Birkhouse Lane Lane 1)				Infinite Saturation Flow			Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base Flows - PM Peak '	16:30	17:30	01:00	
2: '2031 Base Flows - PM Peak '	16:30	17:30	01:00	
3: '2022 With Development Flows - PM Peak '	16:30	17:30	01:00	
4: '2031 With Development Flows - PM Peak '	16:30	17:30	01:00	

Traffic Flows, Desired

FG1: '2022 Base Flows - PM Peak '

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	406	25	75	506
	B	493	0	598	50	1141
	C	21	362	0	200	583
	D	0	0	0	0	0
	Tot.	514	768	623	325	2230

FG2: '2031 Base Flows - PM Peak '

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
	A	0	448	26	83	557
	B	550	0	645	55	1250
	C	22	386	0	220	628
	D	0	0	0	0	0
	Tot.	572	834	671	358	2435

FG3: '2022 With Development Flows - PM Peak '

Desired Flow :

	Destination					
Origin	A	0	406	25	75	506
	B	493	0	839	50	1382
	C	21	518	0	200	739
	D	0	0	0	0	0
	Tot.	514	924	864	325	2627

FG4: '2031 With Development Flows - PM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	448	26	83	557
	B	550	0	887	55	1492
	C	22	542	0	220	784
	D	0	0	0	0	0
	Tot.	572	990	913	358	2833

Stage Timings

Scenario 1: '2022 Base Flows - PM Peak ' (FG1: '2022 Base Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	32	7	13
Change Point	0	37	50

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	-	-	N/A	-	-		-	-	-	-	-	-	79.4%
A62 Manchester Road-Blackmoorfoot Road	-	-	N/A	-	-		-	-	-	-	-	-	79.4%
1/1+1/2	A62 Manchester Road (e) Left Ahead Right	U+O	N/A	N/A	B	D	1	50:32	18	1141	1711:1979	753+684	79.4 : 79.4%
2/2+2/1	Blackmoorfoot Road Right Left Ahead	U+O	N/A	N/A	C -		1	22	-	583	1914:1949	461+281	78.6 : 78.6%
3/1	A62 Manchester Road (w) Ahead Right Left	O	N/A	N/A	A		1	32	-	506	1951	991	51.1%
4/1		U	N/A	N/A	-		-	-	-	768	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	623	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	514	Inf	Inf	0.0%
7/1	Birkhouse Lane	U	N/A	N/A	-		-	-	-	325	Inf	Inf	0.0%

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	-	-	122	174	0	6.0	4.2	0.1	10.3	-	-	-	-
A62 Manchester Road-Blackmoorfoot Road	-	-	122	174	0	6.0	4.2	0.1	10.3	-	-	-	-
1/1+1/2	1141	1141	50	0	0	2.0	1.9	0.1	4.0	12.6	6.6	1.9	8.5
2/2+2/1	583	583	47	174	0	2.5	1.8	-	4.3	26.4	8.2	1.8	9.9
3/1	506	506	25	0	0	1.5	0.5	0.0	2.1	14.7	6.0	0.5	6.6
4/1	768	768	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	623	623	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	514	514	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	325	325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 65			
										Total Delay for Signalled Lanes (pcuHr): 10.33			
										Total Delay Over All Lanes(pcuHr): 10.33			
										PRC for Signalled Lanes (%): 13.4			
										PRC Over All Lanes (%): 13.4			

Stage Timings

Scenario 2: '2031 Base Flows - PM Peak ' (FG2: '2031 Base Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	32	7	13
Change Point	12	49	62

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	-	-	N/A	-	-		-	-	-	-	-	-	87.9%
A62 Manchester Road-Blackmoorfoot Road	-	-	N/A	-	-		-	-	-	-	-	-	87.9%
1/1+1/2	A62 Manchester Road (e) Left Ahead Right	U+O	N/A	N/A	B	D	1	50:32	18	1250	1711:1979	734+688	87.9 : 87.9%
2/2+2/1	Blackmoorfoot Road Right Left Ahead	U+O	N/A	N/A	C -		1	22	-	628	1914:1951	457+287	84.4 : 84.4%
3/1	A62 Manchester Road (w) Ahead Right Left	O	N/A	N/A	A		1	32	-	557	1951	991	56.2%
4/1		U	N/A	N/A	-		-	-	-	834	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	671	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	572	Inf	Inf	0.0%
7/1	Birkhouse Lane	U	N/A	N/A	-		-	-	-	358	Inf	Inf	0.0%

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	-	-	103	220	0	6.9	6.7	0.2	13.8	-	-	-	-
A62 Manchester Road-Blackmoorfoot Road	-	-	103	220	0	6.9	6.7	0.2	13.8	-	-	-	-
1/1+1/2	1250	1250	55	0	0	2.3	3.5	0.1	5.9	17.0	7.7	3.5	11.2
2/2+2/1	628	628	22	220	0	2.9	2.6	-	5.5	31.4	9.2	2.6	11.7
3/1	557	557	26	0	0	1.7	0.6	0.1	2.4	15.6	6.8	0.6	7.4
4/1	834	834	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	572	572	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 65		0.0	
										Total Delay for Signalled Lanes (pcuHr): 13.81		0.0	
										Total Delay Over All Lanes (pcuHr): 13.81		0.0	
										PRC for Signalled Lanes (%): 2.4		0.0	
										PRC Over All Lanes (%): 2.4		0.0	

Stage Timings

Scenario 3: '2022 With Development Flows - PM Peak ' (FG3: '2022 With Development Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	28	7	17
Change Point	0	33	46

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	-	-	N/A	-	-		-	-	-	-	-	-	91.1%
A62 Manchester Road-Blackmoorfoot Road	-	-	N/A	-	-		-	-	-	-	-	-	91.1%
1/1+1/2	A62 Manchester Road (e) Left Ahead Right	U+O	N/A	N/A	B	D	1	50:28	22	1382	1711:1979	921+596	91.1 : 91.1%
2/2+2/1	Blackmoorfoot Road Right Left Ahead	U+O	N/A	N/A	C -		1	26	-	739	1914:1949	588+251	88.1 : 88.1%
3/1	A62 Manchester Road (w) Ahead Right Left	O	N/A	N/A	A		1	28	-	506	1951	870	58.1%
4/1		U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	864	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	514	Inf	Inf	0.0%
7/1	Birkhouse Lane	U	N/A	N/A	-		-	-	-	325	Inf	Inf	0.0%

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	-	-	77	194	25	7.8	8.9	0.2	17.0	-	-	-	-
A62 Manchester Road-Blackmoorfoot Road	-	-	77	194	25	7.8	8.9	0.2	17.0	-	-	-	-
1/1+1/2	1382	1382	50	0	0	2.8	4.8	0.1	7.6	19.9	7.4	4.8	12.2
2/2+2/1	739	739	27	194	0	3.1	3.5	-	6.6	32.2	11.4	3.5	14.9
3/1	506	506	0	0	25	1.9	0.7	0.1	2.7	19.4	6.7	0.7	7.4
4/1	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	864	864	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	514	514	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	325	325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): -1.2 PRC Over All Lanes (%): -1.2		Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):		16.97 16.97	Cycle Time (s): 65					

Stage Timings

Scenario 4: '2031 With Development Flows - PM Peak ' (FG4: '2031 With Development Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	29	7	16
Change Point	13	47	60

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	-	-	N/A	-	-		-	-	-	-	-	-	98.8%
A62 Manchester Road-Blackmoorfoot Road	-	-	N/A	-	-		-	-	-	-	-	-	98.8%
1/1+1/2	A62 Manchester Road (e) Left Ahead Right	U+O	N/A	N/A	B	D	1	50:29	21	1492	1711:1979	898+612	98.8 : 98.8%
2/2+2/1	Blackmoorfoot Road Right Left Ahead	U+O	N/A	N/A	C -		1	25	-	784	1914:1951	561+251	96.6 : 96.6%
3/1	A62 Manchester Road (w) Ahead Right Left	O	N/A	N/A	A		1	29	-	557	1951	900	61.9%
4/1		U	N/A	N/A	-		-	-	-	990	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	913	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	572	Inf	Inf	0.0%
7/1	Birkhouse Lane	U	N/A	N/A	-		-	-	-	358	Inf	Inf	0.0%

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	-	-	94	223	6	8.9	24.7	0.2	33.8	-	-	-	-
A62 Manchester Road-Blackmoorfoot Road	-	-	94	223	6	8.9	24.7	0.2	33.8	-	-	-	-
1/1+1/2	1492	1492	55	0	0	3.2	15.2	0.1	18.5	44.6	14.2	15.2	29.5
2/2+2/1	784	784	19	223	0	3.7	8.7	-	12.4	56.9	12.9	8.7	21.6
3/1	557	557	20	0	6	2.0	0.8	0.1	2.9	18.8	7.4	0.8	8.2
4/1	990	990	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	572	572	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 65			
										Total Delay for Signalled Lanes (pcuHr): 33.81			
										Total Delay Over All Lanes (pcuHr): 33.81			
										PRC for Signalled Lanes (%): -9.8			
										PRC Over All Lanes (%): -9.8			

APPENDIX 3

**LINSIG Output -A616 Lockwood Road/B6108 Meltham
Road/Bridge Street/Swan Lane**

User and Project Details

Project:	Fireworks Factory Blackmoorfoot Road, Huddersfield
Title:	A6161 Lockwood Road-B6018 Meltham Road
Location:	Huddersfield
Additional detail:	
File name:	A616 Lockwood Road-B6108 Meltham Road-Bridge Street-Swan Lane - AM Peak.lsg3x
Author:	
Company:	Croft
Address:	

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	Traffic		7	7
F	Pedestrian		5	5
G	Pedestrian		8	8
H	Pedestrian		8	8
I	Pedestrian		5	5
J	Pedestrian		7	7
K	Dummy		3	3

Phase Intergreens Matrix

Terminating Phase	Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K
	A		-	5	5	-	5	-	-	-	1	-
	B	-		5	6	5	-	5	-	-	-	-
	C	8	6		5	-	-	-	7	8	8	-
	D	8	5	5		5	-	-	7	9	5	-
	E	-	5	-	6		-	-	5	9	8	-
	F	5	-	-	-	-		-	-	-	-	-
	G	-	10	-	-	-	-		-	-	-	-
	H	-	-	10	8	10	-	-		-	-	-
	I	-	-	3	3	3	-	-	-		-	-
	J	1	-	7	9	7	-	-	-	-		-
	K	-	-	-	-	-	-	-	-	-	-	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
7	1	A	Gaining absolute	3	3
7	1	B	Gaining absolute	3	3
7	1	H	Gaining absolute	2	2
7	1	I	Gaining absolute	2	2
7	3	C	Gaining absolute	3	3
7	3	E	Gaining absolute	3	3
7	3	F	Gaining absolute	2	2
7	3	G	Gaining absolute	2	2
7	4	D	Gaining absolute	3	3
7	4	F	Gaining absolute	2	2
7	4	G	Gaining absolute	2	2
7	6	B	Gaining absolute	3	3
7	6	F	Gaining absolute	2	2
7	6	H	Gaining absolute	2	2
7	6	I	Gaining absolute	2	2

Prohibited Stage Change

From Stage	To Stage							
		1	2	3	4	5	6	7
	1		0	10	8	8	5	0
	2	0		5	6	6	5	0
	3	10	10		6	6	10	0
	4	10	10	5		0	10	0
	5	9	8	5	0		9	0
	6	5	5	10	9	9		0
	7	3	2	3	3	2	3	

Phases in Stage

Stage No.	Phases in Stage
1	A B H I
2	A B
3	C E F G
4	D F G
5	D F
6	B F H I J
7	K

Give-Way Lane Input Data

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/2 (A616 Lockwood Road)	8/1 (Right)	1439	0	4/1	1.09	All	3.00	-	0.50	3	3.00
4/2 (B6108 Meltham Road)	6/1 (Right)	1439	0	2/1	1.09	To 6/1 (Left) To 7/1 (Ahead)	3.00	-	0.50	3	3.00

Lane Input Data

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street												
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 (Bridge Street)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 7 Left	Inf
											Arm 8 Ahead	Inf
1/2 (Bridge Street)	U	B	2	3	60.0	Geom	-	3.25	0.00	N	Arm 5 Right	20.00
1/3 (Bridge Street)	U	B	2	3	10.0	Geom	-	3.25	0.00	Y	Arm 5 Right	20.00
2/1 (A616 Lockwood Road)	U	C	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 6 Left	17.00
											Arm 7 Ahead	Inf
2/2 (A616 Lockwood Road)	O	C	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 8 Right	19.00
3/1 (Swan Lane)	U	D	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Left	15.00
											Arm 6 Ahead	Inf
											Arm 7 Right	25.00
4/1 (B6108 Meltham Road)	U	E	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.00
4/2 (B6108 Meltham Road)	O	E	2	3	60.0	Geom	-	3.10	0.00	N	Arm 6 Right	10.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows**Scenario 1: '2022 Base Flows - AM Peak '** (FG1: '2022 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street								
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 (Bridge Street)	3.25	0.00	Y	Arm 7 Left Arm 8 Ahead	Inf Inf	18.8 % 81.2 %	1940	1940
1/2 (Bridge Street)	3.25	0.00	N	Arm 5 Right	20.00	100.0 %	1935	1935
1/3 (Bridge Street)	3.25	0.00	Y	Arm 5 Right	20.00	100.0 %	1805	1805
2/1 (A616 Lockwood Road)	3.30	0.00	Y	Arm 6 Left Arm 7 Ahead	17.00 Inf	34.3 % 65.7 %	1888	1888
2/2 (A616 Lockwood Road)	3.30	0.00	Y	Arm 8 Right	19.00	100.0 %	1803	1803
3/1 (Swan Lane)	3.50	0.00	Y	Arm 5 Left Arm 6 Ahead Arm 7 Right	15.00 Inf 25.00	34.4 % 61.0 % 4.6 %	1895	1895
4/1 (B6108 Meltham Road)	3.10	0.00	Y	Arm 5 Ahead Arm 8 Left	Inf 14.00	99.0 % 1.0 %	1923	1923
4/2 (B6108 Meltham Road)	3.10	0.00	N	Arm 6 Right	10.00	100.0 %	1796	1796
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2031 Base Flows - AM Peak ' (FG2: '2031 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street								
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 (Bridge Street)	3.25	0.00	Y	Arm 7 Left Arm 8 Ahead	Inf Inf	18.7 % 81.3 %	1940	1940
1/2 (Bridge Street)	3.25	0.00	N	Arm 5 Right	20.00	100.0 %	1935	1935
1/3 (Bridge Street)	3.25	0.00	Y	Arm 5 Right	20.00	100.0 %	1805	1805
2/1 (A616 Lockwood Road)	3.30	0.00	Y	Arm 6 Left Arm 7 Ahead	17.00 Inf	34.3 % 65.7 %	1888	1888
2/2 (A616 Lockwood Road)	3.30	0.00	Y	Arm 8 Right	19.00	100.0 %	1803	1803
3/1 (Swan Lane)	3.50	0.00	Y	Arm 5 Left Arm 6 Ahead Arm 7 Right	15.00 Inf 25.00	34.0 % 61.5 % 4.5 %	1895	1895
4/1 (B6108 Meltham Road)	3.10	0.00	Y	Arm 5 Ahead Arm 8 Left	Inf 14.00	98.9 % 1.1 %	1923	1923
4/2 (B6108 Meltham Road)	3.10	0.00	N	Arm 6 Right	10.00	100.0 %	1796	1796
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2022 With Development Flows - AM Peak ' (FG3: '2022 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street								
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 (Bridge Street)	3.25	0.00	Y	Arm 7 Left	Inf	17.9 %	1940	1940
				Arm 8 Ahead	Inf	82.1 %		
1/2 (Bridge Street)	3.25	0.00	N	Arm 5 Right	20.00	100.0 %	1935	1935
1/3 (Bridge Street)	3.25	0.00	Y	Arm 5 Right	20.00	100.0 %	1805	1805
2/1 (A616 Lockwood Road)	3.30	0.00	Y	Arm 6 Left	17.00	34.3 %	1888	1888
				Arm 7 Ahead	Inf	65.7 %		
2/2 (A616 Lockwood Road)	3.30	0.00	Y	Arm 8 Right	19.00	100.0 %	1803	1803
3/1 (Swan Lane)	3.50	0.00	Y	Arm 5 Left	15.00	32.2 %	1899	1899
				Arm 6 Ahead	Inf	63.4 %		
				Arm 7 Right	25.00	4.3 %		
4/1 (B6108 Meltham Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	99.0 %	1923	1923
				Arm 8 Left	14.00	1.0 %		
4/2 (B6108 Meltham Road)	3.10	0.00	N	Arm 6 Right	10.00	100.0 %	1796	1796
5/1				Infinite Saturation Flow			Inf	Inf
5/2				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Scenario 4: '2031 With Development Flows - AM Peak ' (FG4: '2031 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street								
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 (Bridge Street)	3.25	0.00	Y	Arm 7 Left	Inf	17.9 %	1940	1940
				Arm 8 Ahead	Inf	82.1 %		
1/2 (Bridge Street)	3.25	0.00	N	Arm 5 Right	20.00	100.0 %	1935	1935
1/3 (Bridge Street)	3.25	0.00	Y	Arm 5 Right	20.00	100.0 %	1805	1805
2/1 (A616 Lockwood Road)	3.30	0.00	Y	Arm 6 Left	17.00	34.3 %	1888	1888
				Arm 7 Ahead	Inf	65.7 %		
2/2 (A616 Lockwood Road)	3.30	0.00	Y	Arm 8 Right	19.00	100.0 %	1803	1803
3/1 (Swan Lane)	3.50	0.00	Y	Arm 5 Left	15.00	32.0 %	1899	1899
				Arm 6 Ahead	Inf	63.8 %		
				Arm 7 Right	25.00	4.2 %		
4/1 (B6108 Meltham Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	98.9 %	1923	1923
				Arm 8 Left	14.00	1.1 %		
4/2 (B6108 Meltham Road)	3.10	0.00	N	Arm 6 Right	10.00	100.0 %	1796	1796
5/1			Infinite Saturation Flow				Inf	Inf
5/2			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base Flows - AM Peak '	07:45	08:45	01:00	
2: '2031 Base Flows - AM Peak '	07:45	08:45	01:00	
3: '2022 With Development Flows - AM Peak '	07:45	08:45	01:00	
4: '2031 With Development Flows - AM Peak '	07:45	08:45	01:00	

Traffic Flows, Desired

FG1: '2022 Base Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	156	277	21	454
	B	133	0	154	295	582
	C	229	655	0	53	937
	D	6	576	127	0	709
	Tot.	368	1387	558	369	2682

FG2: '2031 Base Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	168	304	22	494
	B	144	0	170	325	639
	C	252	721	0	58	1031
	D	7	635	140	0	782
	Tot.	403	1524	614	405	2946

FG3: '2022 With Development Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	156	307	21	484
	B	133	0	154	295	582
	C	243	655	0	53	951
	D	6	576	127	0	709
	Tot.	382	1387	588	369	2726

FG4: '2031 With Development Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	168	335	22	525
	B	144	0	170	325	639
	C	266	721	0	58	1045
	D	7	635	140	0	782
	Tot.	417	1524	645	405	2991

Stage Timings

Scenario 1: '2022 Base Flows - AM Peak ' (FG1: '2022 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4
Duration	24	42	28
Change Point	3	37	89

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	-	-	N/A	-	-		-	-	-	-	-	-	99.1%
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	N/A	-	-		-	-	-	-	-	-	99.1%
1/1	Bridge Street Left Ahead	U	N/A	N/A	A		1	26	-	282	1940	437	64.6%
1/2+1/3	Bridge Street Right	U	N/A	N/A	B		1	24	-	655	1935:1805	348+325	97.3 : 97.3%
2/1	A616 Lockwood Road Left Ahead	U	N/A	N/A	C		1	42	-	449	1888	677	66.4%
2/2	A616 Lockwood Road Right	O	N/A	N/A	C		1	42	-	133	1803	139	96.0%
3/1	Swan Lane Left Ahead Right	U	N/A	N/A	D		1	28	-	454	1895	458	99.1%
4/1	B6108 Meltham Road Ahead Left	U	N/A	N/A	E		1	42	-	582	1923	689	84.5%
4/2	B6108 Meltham Road Right	O	N/A	N/A	E		1	42	-	127	1796	224	56.7%
5/1		U	N/A	N/A	-		-	-	-	1071	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	558	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	368	Inf	Inf	0.0%

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	-	-	188	0	72	29.3	28.4	1.7	59.4	-	-	-	-
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	188	0	72	29.3	28.4	1.7	59.4	-	-	-	-
1/1	282	282	-	-	-	3.3	0.9	-	4.2	53.7	8.5	0.9	9.4
1/2+1/3	655	655	-	-	-	8.3	9.0	-	17.4	95.4	12.4	9.0	21.4
2/1	449	449	-	-	-	4.0	1.0	-	5.0	40.3	12.6	1.0	13.6
2/2	133	133	62	0	71	1.2	4.5	1.0	6.7	181.1	4.4	4.5	8.9
3/1	454	454	-	-	-	5.7	9.7	-	15.4	122.4	15.0	9.7	24.7
4/1	582	582	-	-	-	5.7	2.6	-	8.3	51.5	17.8	2.6	20.4
4/2	127	127	126	0	1	1.0	0.6	0.7	2.3	66.4	2.9	0.6	3.5
5/1	1071	1071	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	316	316	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	558	558	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	368	368	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										PRC for Signalled Lanes (%): -10.2 PRC Over All Lanes (%): -10.2	Total Delay for Signalled Lanes (pcuHr): 59.38 Total Delay Over All Lanes(pcuHr): 59.38	Cycle Time (s): 120	

Stage Timings

Scenario 2: '2031 Base Flows - AM Peak ' (FG2: '2031 Base Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4
Duration	22	45	27
Change Point	3	35	90

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	-	-	N/A	-	-		-	-	-	-	-	-	112.3%
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	N/A	-	-		-	-	-	-	-	-	112.3%
1/1	Bridge Street Left Ahead	U	N/A	N/A	A		1	24	-	310	1940	404	76.7%
1/2+1/3	Bridge Street Right	U	N/A	N/A	B		1	22	-	721	1935:1805	332+310	112.3 : 112.3%
2/1	A616 Lockwood Road Left Ahead	U	N/A	N/A	C		1	45	-	495	1888	724	68.4%
2/2	A616 Lockwood Road Right	O	N/A	N/A	C		1	45	-	144	1803	132	109.0%
3/1	Swan Lane Left Ahead Right	U	N/A	N/A	D		1	27	-	494	1895	442	111.7%
4/1	B6108 Meltham Road Ahead Left	U	N/A	N/A	E		1	45	-	642	1923	737	87.1%
4/2	B6108 Meltham Road Right	O	N/A	N/A	E		1	45	-	140	1796	221	63.3%
5/1		U	N/A	N/A	-		-	-	-	1176	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	614	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	403	Inf	Inf	0.0%

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	-	-	193	0	79	41.3	89.9	1.9	133.1	-	-	-	-
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street													
1/1	310	310	-	-	-	3.9	1.6	-	5.4	63.2	9.7	1.6	11.3
1/2+1/3	721	642	-	-	-	14.4	43.5	-	57.9	289.0	19.1	43.5	62.7
2/1	495	495	-	-	-	4.3	1.1	-	5.3	38.7	13.8	1.1	14.8
2/2	144	132	54	0	78	1.8	9.7	1.1	12.5	312.7	5.2	9.7	14.9
3/1	494	442	-	-	-	9.9	30.0	-	39.9	290.9	19.1	30.0	49.1
4/1	642	642	-	-	-	6.1	3.2	-	9.3	52.0	19.8	3.2	23.0
4/2	140	140	139	0	1	1.1	0.8	0.8	2.7	70.6	4.2	0.8	5.0
5/1	1118	1118	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	310	310	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	582	582	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	403	403	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	391	391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 120			
PRC for Signalled Lanes (%): -24.7										Total Delay for Signalled Lanes (pcuHr): 133.10			
PRC Over All Lanes (%): -24.7										Total Delay Over All Lanes (pcuHr): 133.10			

Stage Timings

Scenario 3: '2022 With Development Flows - AM Peak ' (FG3: '2022 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4
Duration	23	42	29
Change Point	3	36	88

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	-	-	N/A	-	-		-	-	-	-	-	-	101.9%
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	N/A	-	-		-	-	-	-	-	-	101.9%
1/1	Bridge Street Left Ahead	U	N/A	N/A	A		1	25	-	296	1940	420	70.4%
1/2+1/3	Bridge Street Right	U	N/A	N/A	B		1	23	-	655	1935:1805	340+317	99.6 : 99.6%
2/1	A616 Lockwood Road Left Ahead	U	N/A	N/A	C		1	42	-	449	1888	677	66.4%
2/2	A616 Lockwood Road Right	O	N/A	N/A	C		1	42	-	133	1803	139	96.0%
3/1	Swan Lane Left Ahead Right	U	N/A	N/A	D		1	29	-	484	1899	475	101.9%
4/1	B6108 Meltham Road Ahead Left	U	N/A	N/A	E		1	42	-	582	1923	689	84.5%
4/2	B6108 Meltham Road Right	O	N/A	N/A	E		1	42	-	127	1796	224	56.7%
5/1		U	N/A	N/A	-		-	-	-	1071	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	588	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	382	Inf	Inf	0.0%

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	-	-	188	0	72	30.8	35.7	1.7	68.2	-	-	-	-
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	188	0	72	30.8	35.7	1.7	68.2	-	-	-	-
1/1	296	296	-	-	-	3.6	1.2	-	4.7	57.7	9.0	1.2	10.2
1/2+1/3	655	655	-	-	-	8.6	12.2	-	20.8	114.3	12.5	12.2	24.7
2/1	449	449	-	-	-	4.0	1.0	-	5.0	40.3	12.6	1.0	13.6
2/2	133	133	62	0	71	1.2	4.5	1.0	6.7	181.1	4.4	4.5	8.9
3/1	484	475	-	-	-	6.7	13.6	-	20.2	150.6	16.4	13.6	30.0
4/1	582	582	-	-	-	5.7	2.6	-	8.3	51.5	17.8	2.6	20.4
4/2	127	127	126	0	1	1.0	0.6	0.7	2.3	66.4	2.9	0.6	3.5
5/1	1068	1068	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	316	316	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	582	582	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	382	382	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										Cycle Time (s): 120			
			PRC for Signalled Lanes (%): -13.3		Total Delay for Signalled Lanes (pcuHr): 68.15		PRC Over All Lanes (%): -13.3		Total Delay Over All Lanes(pcuHr): 68.15				

Stage Timings

Scenario 4: '2031 With Development Flows - AM Peak ' (FG4: '2031 With Development Flows - AM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4
Duration	21	45	28
Change Point	0	31	86

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	-	-	N/A	-	-		-	-	-	-	-	-	114.4%
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	N/A	-	-		-	-	-	-	-	-	114.4%
1/1	Bridge Street Left Ahead	U	N/A	N/A	A		1	23	-	324	1940	388	83.5%
1/2+1/3	Bridge Street Right	U	N/A	N/A	B		1	21	-	721	1935:1805	324+309	113.9 : 113.9%
2/1	A616 Lockwood Road Left Ahead	U	N/A	N/A	C		1	45	-	495	1888	724	68.4%
2/2	A616 Lockwood Road Right	O	N/A	N/A	C		1	45	-	144	1803	132	109.0%
3/1	Swan Lane Left Ahead Right	U	N/A	N/A	D		1	28	-	525	1899	459	114.4%
4/1	B6108 Meltham Road Ahead Left	U	N/A	N/A	E		1	45	-	642	1923	737	87.1%
4/2	B6108 Meltham Road Right	O	N/A	N/A	E		1	45	-	140	1796	221	63.3%
5/1		U	N/A	N/A	-		-	-	-	1172	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	352	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	645	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	417	Inf	Inf	0.0%

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	-	-	193	0	79	43.8	101.5	1.9	147.2	-	-	-	-
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	193	0	79	43.8	101.5	1.9	147.2	-	-	-	-
1/1	324	324	-	-	-	4.1	2.4	-	6.5	72.3	10.3	2.4	12.7
1/2+1/3	721	633	-	-	-	15.2	47.8	-	63.0	314.4	19.2	47.8	67.0
2/1	495	495	-	-	-	4.3	1.1	-	5.3	38.7	13.8	1.1	14.8
2/2	144	132	54	0	78	1.8	9.7	1.1	12.5	313.0	5.2	9.7	14.9
3/1	525	459	-	-	-	11.3	36.6	-	47.9	328.3	21.5	36.6	58.1
4/1	642	642	-	-	-	6.1	3.2	-	9.3	52.0	19.8	3.2	23.0
4/2	140	140	139	0	1	1.1	0.8	0.8	2.7	70.6	4.2	0.8	5.0
5/1	1106	1106	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	603	603	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										PRC for Signalled Lanes (%): -27.1 PRC Over All Lanes (%): -27.1	Total Delay for Signalled Lanes (pcuHr): 147.22 Total Delay Over All Lanes(pcuHr): 147.22	Cycle Time (s): 120	

User and Project Details

Project:	Fireworks Factory, Blackmoorfoot Road
Title:	A616 Lockwood Road-B6108 Meltham Road
Location:	Huddersfield
Additional detail:	
File name:	A616 Lockwood Road-B6108 Meltham Road-Bridge Street-Swan Lane - PM Peak.lsg3x
Author:	
Company:	Croft
Address:	

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	Traffic		7	7
F	Pedestrian		5	5
G	Pedestrian		8	8
H	Pedestrian		8	8
I	Pedestrian		5	5
J	Pedestrian		7	7
K	Dummy		3	3

Phase Intergreens Matrix

Terminating Phase	Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K
	A		-	5	5	-	5	-	-	-	1	-
	B	-		5	6	5	-	5	-	-	-	-
	C	8	6		5	-	-	-	7	8	8	-
	D	8	5	5		5	-	-	7	9	5	-
	E	-	5	-	6		-	-	5	9	8	-
	F	5	-	-	-	-		-	-	-	-	-
	G	-	10	-	-	-	-		-	-	-	-
	H	-	-	10	8	10	-	-		-	-	-
	I	-	-	3	3	3	-	-	-		-	-
	J	1	-	7	9	7	-	-	-	-		-
	K	-	-	-	-	-	-	-	-	-	-	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
7	1	A	Gaining absolute	3	3
7	1	B	Gaining absolute	3	3
7	1	H	Gaining absolute	2	2
7	1	I	Gaining absolute	2	2
7	3	C	Gaining absolute	3	3
7	3	E	Gaining absolute	3	3
7	3	F	Gaining absolute	2	2
7	3	G	Gaining absolute	2	2
7	4	D	Gaining absolute	3	3
7	4	F	Gaining absolute	2	2
7	4	G	Gaining absolute	2	2
7	6	B	Gaining absolute	3	3
7	6	F	Gaining absolute	2	2
7	6	H	Gaining absolute	2	2
7	6	I	Gaining absolute	2	2

Prohibited Stage Change

From Stage	To Stage							
		1	2	3	4	5	6	7
	1		0	10	8	8	5	0
	2	0		5	6	6	5	0
	3	10	10		6	6	10	0
	4	10	10	5		0	10	0
	5	9	8	5	0		9	0
	6	5	5	10	9	9		0
	7	3	2	3	3	2	3	

Phases in Stage

Stage No.	Phases in Stage
1	A B H I
2	A B
3	C E F G
4	D F G
5	D F
6	B F H I J
7	K

Give-Way Lane Input Data

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/2 (A616 Lockwood Road)	8/1 (Right)	1439	0	4/1	1.09	All	3.00	-	0.50	3	3.00
4/2 (B6108 Meltham Road)	6/1 (Right)	1439	0	2/1	1.09	To 6/1 (Left) To 7/1 (Ahead)	3.00	-	0.50	3	3.00

Lane Input Data

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street												
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 (Bridge Street)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 7 Left	Inf
											Arm 8 Ahead	Inf
1/2 (Bridge Street)	U	B	2	3	60.0	Geom	-	3.25	0.00	N	Arm 5 Right	20.00
1/3 (Bridge Street)	U	B	2	3	10.0	Geom	-	3.25	0.00	Y	Arm 5 Right	20.00
2/1 (A616 Lockwood Road)	U	C	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 6 Left	17.00
											Arm 7 Ahead	Inf
2/2 (A616 Lockwood Road)	O	C	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 8 Right	19.00
3/1 (Swan Lane)	U	D	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Left	15.00
											Arm 6 Ahead	Inf
											Arm 7 Right	25.00
4/1 (B6108 Meltham Road)	U	E	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.00
4/2 (B6108 Meltham Road)	O	E	2	3	60.0	Geom	-	3.10	0.00	N	Arm 6 Right	10.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows**Scenario 1: '2022 Base Flows - PM Peak '** (FG2: '2022 Base Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street								
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 (Bridge Street)	3.25	0.00	Y	Arm 7 Left Arm 8 Ahead	Inf Inf	18.6 % 81.4 %	1940	1940
1/2 (Bridge Street)	3.25	0.00	N	Arm 5 Right	20.00	100.0 %	1935	1935
1/3 (Bridge Street)	3.25	0.00	Y	Arm 5 Right	20.00	100.0 %	1805	1805
2/1 (A616 Lockwood Road)	3.30	0.00	Y	Arm 6 Left Arm 7 Ahead	17.00 Inf	22.8 % 77.2 %	1907	1907
2/2 (A616 Lockwood Road)	3.30	0.00	Y	Arm 8 Right	19.00	100.0 %	1803	1803
3/1 (Swan Lane)	3.50	0.00	Y	Arm 5 Left Arm 6 Ahead Arm 7 Right	15.00 Inf 25.00	30.7 % 66.8 % 2.5 %	1904	1904
4/1 (B6108 Meltham Road)	3.10	0.00	Y	Arm 5 Ahead Arm 8 Left	Inf 14.00	94.9 % 5.1 %	1914	1914
4/2 (B6108 Meltham Road)	3.10	0.00	N	Arm 6 Right	10.00	100.0 %	1796	1796
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2031 Base Flows - PM Peak ' (FG4: '2031 Base Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street								
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 (Bridge Street)	3.25	0.00	Y	Arm 7 Left Arm 8 Ahead	Inf Inf	18.4 % 81.6 %	1940	1940
1/2 (Bridge Street)	3.25	0.00	N	Arm 5 Right	20.00	100.0 %	1935	1935
1/3 (Bridge Street)	3.25	0.00	Y	Arm 5 Right	20.00	100.0 %	1805	1805
2/1 (A616 Lockwood Road)	3.30	0.00	Y	Arm 6 Left Arm 7 Ahead	17.00 Inf	22.8 % 77.2 %	1907	1907
2/2 (A616 Lockwood Road)	3.30	0.00	Y	Arm 8 Right	19.00	100.0 %	1803	1803
3/1 (Swan Lane)	3.50	0.00	Y	Arm 5 Left Arm 6 Ahead Arm 7 Right	15.00 Inf 25.00	30.1 % 67.4 % 2.6 %	1905	1905
4/1 (B6108 Meltham Road)	3.10	0.00	Y	Arm 5 Ahead Arm 8 Left	Inf 14.00	95.1 % 4.9 %	1915	1915
4/2 (B6108 Meltham Road)	3.10	0.00	N	Arm 6 Right	10.00	100.0 %	1796	1796
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2022 With Development Flows - PM Peak ' (FG6: '2022 With Development Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street								
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 (Bridge Street)	3.25	0.00	Y	Arm 7 Left	Inf	17.1 %	1940	1940
				Arm 8 Ahead	Inf	82.9 %		
1/2 (Bridge Street)	3.25	0.00	N	Arm 5 Right	20.00	100.0 %	1935	1935
1/3 (Bridge Street)	3.25	0.00	Y	Arm 5 Right	20.00	100.0 %	1805	1805
2/1 (A616 Lockwood Road)	3.30	0.00	Y	Arm 6 Left	17.00	22.8 %	1907	1907
				Arm 7 Ahead	Inf	77.2 %		
2/2 (A616 Lockwood Road)	3.30	0.00	Y	Arm 8 Right	19.00	100.0 %	1803	1803
3/1 (Swan Lane)	3.50	0.00	Y	Arm 5 Left	15.00	29.3 %	1906	1906
				Arm 6 Ahead	Inf	68.3 %		
				Arm 7 Right	25.00	2.4 %		
4/1 (B6108 Meltham Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	94.9 %	1914	1914
				Arm 8 Left	14.00	5.1 %		
4/2 (B6108 Meltham Road)	3.10	0.00	N	Arm 6 Right	10.00	100.0 %	1796	1796
5/1				Infinite Saturation Flow			Inf	Inf
5/2				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Scenario 4: '2031 With Development Flows - PM Peak ' (FG8: '2031 With Development Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Junction: A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street								
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 (Bridge Street)	3.25	0.00	Y	Arm 7 Left	Inf	17.1 %	1940	1940
				Arm 8 Ahead	Inf	82.9 %		
1/2 (Bridge Street)	3.25	0.00	N	Arm 5 Right	20.00	100.0 %	1935	1935
1/3 (Bridge Street)	3.25	0.00	Y	Arm 5 Right	20.00	100.0 %	1805	1805
2/1 (A616 Lockwood Road)	3.30	0.00	Y	Arm 6 Left	17.00	22.8 %	1907	1907
				Arm 7 Ahead	Inf	77.2 %		
2/2 (A616 Lockwood Road)	3.30	0.00	Y	Arm 8 Right	19.00	100.0 %	1803	1803
3/1 (Swan Lane)	3.50	0.00	Y	Arm 5 Left	15.00	28.8 %	1907	1907
				Arm 6 Ahead	Inf	68.8 %		
				Arm 7 Right	25.00	2.5 %		
4/1 (B6108 Meltham Road)	3.10	0.00	Y	Arm 5 Ahead	Inf	95.1 %	1915	1915
				Arm 8 Left	14.00	4.9 %		
4/2 (B6108 Meltham Road)	3.10	0.00	N	Arm 6 Right	10.00	100.0 %	1796	1796
5/1			Infinite Saturation Flow				Inf	Inf
5/2			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base Flows - AM Peak '	07:45	08:45	01:00	
2: '2022 Base Flows - PM Peak '	16:30	17:30	01:00	
3: '2031 Base Flows - AM Peak '	07:45	08:45	01:00	
4: '2031 Base Flows - PM Peak '	16:30	17:30	01:00	
5: '2022 With Development Flows - AM Peak '	07:45	08:45	01:00	
6: '2022 With Development Flows - PM Peak '	16:30	17:30	01:00	
7: '2031 With Development Flows - AM Peak '	07:45	08:45	01:00	
8: '2031 With Development Flows - PM Peak '	16:30	17:30	01:00	

Traffic Flows, Desired

FG1: '2022 Base Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	156	277	21	454
	B	133	0	154	295	582
	C	229	655	0	53	937
	D	6	576	127	0	709
	Tot.	368	1387	558	369	2682

FG2: '2022 Base Flows - PM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	121	263	10	394
	B	261	0	163	553	977
	C	285	458	0	65	808
	D	18	332	104	0	454
	Tot.	564	911	530	628	2633

FG3: '2031 Base Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	168	304	22	494
	B	144	0	170	325	639
	C	252	721	0	58	1031
	D	7	635	140	0	782
	Tot.	403	1524	614	405	2946

FG4: '2031 Base Flows - PM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	129	289	11	429
	B	282	0	180	611	1073
	C	314	505	0	71	890
	D	19	366	115	0	500
	Tot.	615	1000	584	693	2892

FG5: '2022 With Development Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	156	307	21	484
	B	133	0	154	295	582
	C	243	655	0	53	951
	D	6	576	127	0	709
	Tot.	382	1387	588	369	2726

FG6: '2022 With Development Flows - PM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	121	282	10	413
	B	261	0	163	553	977
	C	315	458	0	65	838
	D	18	332	104	0	454
	Tot.	594	911	549	628	2682

FG7: '2031 With Development Flows - AM Peak '

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	168	335	22	525
	B	144	0	170	325	639
	C	266	721	0	58	1045
	D	7	635	140	0	782
	Tot.	417	1524	645	405	2991

FG8: '2031 With Development Flows - PM Peak '

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	129	308	11	448
	B	282	0	180	611	1073
	C	343	505	0	71	919
	D	19	366	115	0	500
	Tot.	644	1000	603	693	2940

Stage Timings

Scenario 1: '2022 Base Flows - PM Peak ' (FG2: '2022 Base Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4
Duration	20	49	25
Change Point	0	30	89

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	-	-	N/A	-	-		-	-	-	-	-	-	95.5%
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	N/A	-	-		-	-	-	-	-	-	95.5%
1/1	Bridge Street Left Ahead	U	N/A	N/A	A		1	22	-	350	1940	372	94.1%
1/2+1/3	Bridge Street Right	U	N/A	N/A	B		1	20	-	458	1935:1805	316+295	75.0 : 75.0%
2/1	A616 Lockwood Road Left Ahead	U	N/A	N/A	C		1	49	-	716	1907	795	90.1%
2/2	A616 Lockwood Road Right	O	N/A	N/A	C		1	49	-	261	1803	372	70.2%
3/1	Swan Lane Left Ahead Right	U	N/A	N/A	D		1	25	-	394	1904	413	95.5%
4/1	B6108 Meltham Road Ahead Left	U	N/A	N/A	E		1	49	-	350	1914	798	43.9%
4/2	B6108 Meltham Road Right	O	N/A	N/A	E		1	49	-	104	1796	122	85.2%
5/1		U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	221	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	530	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	628	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	564	Inf	Inf	0.0%

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	-	-	302	0	63	27.4	21.1	1.7	50.3	-	-	-	-
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	302	0	63	27.4	21.1	1.7	50.3	-	-	-	-
1/1	350	350	-	-	-	4.7	5.4	-	10.0	103.1	11.5	5.4	16.8
1/2+1/3	458	458	-	-	-	5.9	1.5	-	7.4	58.1	7.4	1.5	8.8
2/1	716	716	-	-	-	6.5	4.1	-	10.6	53.4	22.3	4.1	26.4
2/2	261	261	259	0	2	2.2	1.2	0.7	4.0	55.9	7.5	1.2	8.6
3/1	394	394	-	-	-	5.1	6.3	-	11.4	104.2	12.9	6.3	19.2
4/1	350	350	-	-	-	2.4	0.4	-	2.8	29.0	8.3	0.4	8.7
4/2	104	104	43	0	61	0.6	2.3	1.0	4.0	138.1	2.1	2.3	4.4
5/1	690	690	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	221	221	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	530	530	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	628	628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	564	564	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -6.1 Total Delay for Signalled Lanes (pcuHr): 50.30 PRC Over All Lanes (%): -6.1 Total Delay Over All Lanes(pcuHr): 50.30 Cycle Time (s): 120													

Stage Timings

Scenario 2: '2031 Base Flows - PM Peak ' (FG4: '2031 Base Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4
Duration	18	53	23
Change Point	0	28	91

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	-	-	N/A	-	-		-	-	-	-	-	-	113.4%
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	N/A	-	-		-	-	-	-	-	-	113.4%
1/1	Bridge Street Left Ahead	U	N/A	N/A	A		1	20	-	385	1940	340	113.4%
1/2+1/3	Bridge Street Right	U	N/A	N/A	B		1	18	-	505	1935:1805	300+283	87.0 : 86.3%
2/1	A616 Lockwood Road Left Ahead	U	N/A	N/A	C		1	53	-	791	1907	858	92.2%
2/2	A616 Lockwood Road Right	O	N/A	N/A	C		1	53	-	282	1803	387	72.8%
3/1	Swan Lane Left Ahead Right	U	N/A	N/A	D		1	23	-	429	1905	381	112.6%
4/1	B6108 Meltham Road Ahead Left	U	N/A	N/A	E		1	53	-	385	1915	862	44.7%
4/2	B6108 Meltham Road Right	O	N/A	N/A	E		1	53	-	115	1796	114	100.9%
5/1		U	N/A	N/A	-		-	-	-	756	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%

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	-	-	313	0	83	36.2	69.7	2.0	107.9	-	-	-	-
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	313	0	83	36.2	69.7	2.0	107.9	-	-	-	-
1/1	385	340	-	-	-	8.1	26.4	-	34.5	322.3	14.3	26.4	40.7
1/2+1/3	505	505	-	-	-	6.9	3.0	-	9.9	70.7	8.4	3.0	11.4
2/1	791	791	-	-	-	6.8	5.1	-	11.9	54.3	24.6	5.1	29.7
2/2	282	282	280	0	2	2.2	1.3	0.8	4.3	55.4	8.0	1.3	9.3
3/1	429	381	-	-	-	9.0	27.9	-	36.9	309.6	17.1	27.9	45.0
4/1	385	385	-	-	-	2.4	0.4	-	2.8	26.5	8.8	0.4	9.2
4/2	115	114	34	0	80	0.7	5.6	1.2	7.6	236.7	2.3	5.6	7.9
5/1	742	742	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	244	244	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	551	551	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	578	578	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										PRC for Signalled Lanes (%): -26.0 PRC Over All Lanes (%): -26.0	Total Delay for Signalled Lanes (pcuHr): 107.94 Total Delay Over All Lanes(pcuHr): 107.94	Cycle Time (s): 120	

Stage Timings

Scenario 3: '2022 With Development Flows - PM Peak ' (FG6: '2022 With Development Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4
Duration	21	48	25
Change Point	0	31	89

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	-	-	N/A	-	-		-	-	-	-	-	-	100.0%
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	N/A	-	-		-	-	-	-	-	-	100.0%
1/1	Bridge Street Left Ahead	U	N/A	N/A	A		1	23	-	380	1940	388	97.9%
1/2+1/3	Bridge Street Right	U	N/A	N/A	B		1	21	-	458	1935:1805	324+302	73.1 : 73.1%
2/1	A616 Lockwood Road Left Ahead	U	N/A	N/A	C		1	48	-	716	1907	779	91.9%
2/2	A616 Lockwood Road Right	O	N/A	N/A	C		1	48	-	261	1803	363	71.9%
3/1	Swan Lane Left Ahead Right	U	N/A	N/A	D		1	25	-	413	1906	413	100.0%
4/1	B6108 Meltham Road Ahead Left	U	N/A	N/A	E		1	48	-	350	1914	782	44.8%
4/2	B6108 Meltham Road Right	O	N/A	N/A	E		1	48	-	104	1796	105	99.1%
5/1		U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	221	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	549	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	628	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	594	Inf	Inf	0.0%

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	-	-	292	0	73	28.4	30.9	1.7	61.0	-	-	-	-
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street													
1/1	380	380	-	-	-	5.0	7.9	-	13.0	123.1	12.6	7.9	20.5
1/2+1/3	458	458	-	-	-	5.8	1.3	-	7.1	56.1	7.3	1.3	8.6
2/1	716	716	-	-	-	6.7	4.9	-	11.6	58.4	22.5	4.9	27.4
2/2	261	261	259	0	2	2.3	1.2	0.7	4.2	58.1	7.5	1.2	8.8
3/1	413	413	-	-	-	5.4	10.2	-	15.6	135.7	13.8	10.2	23.9
4/1	350	350	-	-	-	2.5	0.4	-	2.9	29.9	8.4	0.4	8.8
4/2	104	104	33	0	71	0.7	4.9	1.1	6.6	228.0	2.2	4.9	7.0
5/1	690	690	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	221	221	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	549	549	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	628	628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	594	594	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1		PRC for Signalled Lanes (%): -11.1 PRC Over All Lanes (%): -11.1			Total Delay for Signalled Lanes (pcuHr): 61.02 Total Delay Over All Lanes(pcuHr): 61.02				Cycle Time (s): 120				

Stage Timings

Scenario 4: '2031 With Development Flows - PM Peak ' (FG8: '2031 With Development Flows - PM Peak ', Plan 1: 'Network Control Plan 1')

Stage	1	3	4
Duration	21	47	26
Change Point	0	31	88

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	-	-	N/A	-	-		-	-	-	-	-	-	127.8%
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street	-	-	N/A	-	-		-	-	-	-	-	-	127.8%
1/1	Bridge Street Left Ahead	U	N/A	N/A	A		1	23	-	414	1940	388	106.7%
1/2+1/3	Bridge Street Right	U	N/A	N/A	B		1	21	-	505	1935:1805	324+303	80.5 : 80.5%
2/1	A616 Lockwood Road Left Ahead	U	N/A	N/A	C		1	47	-	791	1907	763	103.7%
2/2	A616 Lockwood Road Right	O	N/A	N/A	C		1	47	-	282	1803	326	86.5%
3/1	Swan Lane Left Ahead Right	U	N/A	N/A	D		1	26	-	448	1907	429	104.4%
4/1	B6108 Meltham Road Ahead Left	U	N/A	N/A	E		1	47	-	385	1915	766	50.3%
4/2	B6108 Meltham Road Right	O	N/A	N/A	E		1	47	-	115	1796	90	127.8%
5/1		U	N/A	N/A	-		-	-	-	756	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	644	Inf	Inf	0.0%

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	-	-	253	0	119	37.4	77.5	2.0	116.9	-	-	-	-
A616 Lockwood Road/B6108 Meltham Road/Swan Lane/Bridge Street			253	0	119	37.4	77.5	2.0	116.9	-	-	-	-
1/1	414	388	-	-	-	7.1	18.6	-	25.7	223.2	14.7	18.6	33.2
1/2+1/3	505	505	-	-	-	6.5	2.0	-	8.5	60.5	8.2	2.0	10.2
2/1	791	763	-	-	-	9.3	22.8	-	32.0	145.9	27.3	22.8	50.1
2/2	282	282	253	0	29	2.7	2.8	0.9	6.4	81.8	8.8	2.8	11.6
3/1	448	429	-	-	-	7.1	16.3	-	23.4	188.3	15.8	16.3	32.1
4/1	385	385	-	-	-	2.9	0.5	-	3.4	31.7	9.6	0.5	10.1
4/2	115	90	0	0	90	1.8	14.5	1.2	17.5	547.5	4.7	14.5	19.2
5/1	751	751	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	244	244	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	559	559	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	666	666	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	622	622	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1										PRC for Signalled Lanes (%): -42.0 PRC Over All Lanes (%): -42.0	Total Delay for Signalled Lanes (pcuHr): 116.94 Total Delay Over All Lanes(pcuHr): 116.94	Cycle Time (s): 120	