14455 / BARNSLEY
SEPTEMBER 2023
CLASSIFIED TURNING COUNT

SITE: 16 DATE: 19/09/2023

LOCATION: Summer Lane/Victoria Crescent West Junction DAY: Tuesday

	A to C								A to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	10	2	0	0	0	0	0	12	4	1	0	0	0	0	0	5
07:15	10	0	0	0	0	0	2	12	7	0	0	0	0	0	0	7
07:30	6	1	0	0	0	0	0	7	7	0	0	0	0	0	0	7
07:45	18	2	0	0	0	0	0	20	13	2	1	0	0	0	0	16
H/TOT	44	5	0	0	0	0	2	51	31	3	1	0	0	0	0	35
08:00	14	5	1	0	0	1	0	21	11	0	0	0	0	0	0	11
08:15	18	0	0	0	0	0	0	18	7	1	0	0	0	0	0	8
08:30	34	1	0	0	0	0	0	35	15	1	2	0	0	0	0	18
08:45	21	0	1	0	0	0	0	22	8	0	0	0	0	0	0	8
H/TOT	87	6	2	0	0	1	0	96	41	2	2	0	0	0	0	45
P/TOT	131	11	2	0	0	1	2	147	72	5	3	0	0	0	0	80

	A to C								A to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	24	0	0	0	0	0	0	24	9	1	0	0	0	0	0	10
15:15	17	3	0	0	0	0	0	20	6	0	0	0	0	0	0	6
15:30	15	2	0	0	0	0	0	17	3	0	0	0	0	0	0	3
15:45	13	0	0	0	0	0	0	13	13	1	0	0	0	0	0	14
H/TOT	69	5	0	0	0	0	0	74	31	2	0	0	0	0	0	33
16:00	15	1	0	0	0	0	0	16	19	3	0	0	0	0	0	22
16:15	19	3	1	0	0	0	0	23	12	2	0	0	0	0	0	14
16:30	13	2	0	0	0	0	0	15	10	2	0	0	0	0	0	12
16:45	22	1	2	0	0	0	0	25	6	1	0	0	0	0	0	7
H/TOT	69	7	3	0	0	0	0	79	47	8	0	0	0	0	0	55
17:00	14	2	0	0	0	0	0	16	13	0	1	0	0	0	0	14
17:15	13	1	0	0	0	0	0	14	7	0	0	0	0	0	0	7
17:30	11	2	0	0	0	0	0	13	10	0	0	0	0	0	0	10
17:45	16	1	0	0	0	0	0	17	7	0	0	0	0	0	0	7
H/TOT	54	6	0	0	0	0	0	60	37	0	1	0	0	0	0	38
P/TOT	192	18	3	0	0	0	0	213	115	10	1	0	0	0	0	126

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TIME	A to A CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	1	0	0	0	0	0	1
H/TOT	0	1	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
P/TOT	0	1	0	0	0	0	0	1

TIME	A to A CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	1	0	0	0	0	0	0	1
H/TOT	1	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
P/TOT	1	0	0	0	0	0	0	1

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SITE: 16 DATE: 19/09/2023

LOCATION: Summer Lane/Victoria Crescent West Junction DAY: Tuesday

	B to A								B to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	4	1	0	0	0	0	0	5	47	6	4	0	1	0	0	58
07:15	6	0	0	0	0	0	0	6	47	6	5	0	0	1	1	60
07:30	5	1	0	0	0	0	0	6	48	7	1	0	0	0	0	56
07:45	5	3	0	0	0	0	0	8	76	7	2	0	1	0	0	86
H/TOT	20	5	0	0	0	0	0	25	218	26	12	0	2	1	1	260
08:00	17	3	0	0	0	0	0	20	71	9	2	0	0	0	0	82
08:15	15	0	0	0	0	0	0	15	65	2	1	0	1	0	0	69
08:30	23	0	0	0	0	0	0	23	80	8	1	0	0	0	0	89
08:45	33	3	2	0	0	0	0	38	77	9	1	0	1	0	0	88
H/TOT	88	6	2	0	0	0	0	96	293	28	5	0	2	0	0	328
P/TOT	108	11	2	0	0	0	0	121	511	54	17	0	4	1	1	588

	B to A								B to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	19	3	2	0	0	0	0	24	62	4	0	0	0	1	0	67
15:15	25	5	0	0	0	0	0	30	71	8	0	0	0	0	0	79
15:30	16	1	1	0	0	0	0	18	68	5	2	0	1	1	0	77
15:45	16	4	0	0	0	0	0	20	59	8	1	0	0	1	0	69
H/TOT	76	13	3	0	0	0	0	92	260	25	3	0	1	3	0	292
16:00	46	2	0	0	0	0	0	48	33	7	0	0	1	0	0	41
16:15	25	3	0	0	0	0	0	28	52	5	0	0	0	0	0	57
16:30	17	0	1	0	0	0	0	18	59	8	1	0	0	0	0	68
16:45	8	1	0	0	0	1	0	10	54	5	0	0	1	0	0	60
H/TOT	96	6	1	0	0	1	0	104	198	25	1	0	2	0	0	226
17:00	17	0	0	0	0	0	0	17	42	8	0	0	1	0	0	51
17:15	19	1	0	0	0	0	0	20	69	4	0	0	0	0	0	73
17:30	20	5	0	0	0	0	0	25	61	0	0	0	1	0	0	62
17:45	15	1	0	0	0	0	0	16	63	3	0	0	0	0	1	67
H/TOT	71	7	0	0	0	0	0	78	235	15	0	0	2	0	1	253
P/TOT	243	26	4	0	0	1	0	274	693	65	4	0	5	3	1	771

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TIME	B to B CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

TIME	B to B CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00								0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

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SEPTEMBER 2023
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SITE: 16 DATE: 19/09/2023

LOCATION: Summer Lane/Victoria Crescent West Junction DAY: Tuesday

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	38	7	4	0	0	1	1	51	2	1	0	0	0	0	0	3
07:15	55	10	0	0	1	0	0	66	4	2	0	0	0	0	0	6
07:30	76	13	4	0	1	0	0	94	9	2	0	0	0	0	0	11
07:45	77	6	1	0	0	1	0	85	6	3	0	0	0	0	0	9
H/TOT	246	36	9	0	2	2	1	296	21	8	0	0	0	0	0	29
08:00	69	4	0	0	0	0	0	73	22	1	0	0	0	0	0	23
08:15	54	10	1	0	0	0	0	65	20	4	0	0	0	0	0	24
08:30	60	6	1	0	0	0	0	67	16	4	1	0	0	1	0	22
08:45	72	5	1	0	0	1	0	79	32	3	1	0	0	0	0	36
H/TOT	255	25	3	0	0	1	0	284	90	12	2	0	0	1	0	105
P/TOT	501	61	12	0	2	3	1	580	111	20	2	0	0	1	0	134

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	67	12	0	1	1	1	0	82	22	1	1	0	0	0	1	25
15:15	68	7	1	0	0	0	0	76	37	2	0	0	0	0	0	39
15:30	65	6	0	0	1	0	0	72	34	0	1	0	0	1	0	36
15:45	63	7	1	0	0	0	0	71	23	4	0	0	0	1	0	28
H/TOT	263	32	2	1	2	1	0	301	116	7	2	0	0	2	1	128
16:00	95	14	1	0	0	1	0	111	38	3	0	0	0	0	2	43
16:15	77	10	0	0	1	0	1	89	22	6	1	0	0	0	0	29
16:30	95	12	0	0	1	0	0	108	16	3	0	0	0	0	0	19
16:45	84	10	0	0	0	0	0	94	14	3	1	0	0	2	1	21
H/TOT	351	46	1	0	2	1	1	402	90	15	2	0	0	2	3	112
17:00	91	5	0	0	1	0	0	97	35	5	0	0	0	0	0	40
17:15	79	10	0	0	0	0	0	89	25	1	1	0	0	0	0	27
17:30	66	6	0	0	0	0	0	72	15	3	0	1	0	0	0	19
17:45	63	7	1	0	1	0	0	72	12	1	0	0	0	0	0	13
H/TOT	299	28	1	0	2	0	0	330	87	10	1	1	0	0	0	99
P/TOT	913	106	4	1	6	2	1	1033	293	32	5	1	0	4	4	339

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	C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

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	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	6	2	0	0	0	0	0	8	14	3	0	0	0	0	0	17
07:15	10	2	0	0	0	0	0	12	17	0	0	0	0	0	2	19
07:30	14	3	0	0	0	0	0	17	13	1	0	0	0	0	0	14
07:45	11	7	0	0	0	0	0	18	31	5	1	0	0	0	0	37
H/TOT	41	14	0	0	0	0	0	55	75	9	1	0	0	0	2	87
08:00	39	4	0	0	0	0	0	43	25	5	1	0	0	1	0	32
08:15	35	4	0	0	0	0	0	39	25	1	0	0	0	0	0	26
08:30	39	4	1	0	0	1	0	45	49	2	2	0	0	0	0	53
08:45	65	6	3	0	0	0	0	74	29	0	1	0	0	0	0	30
H/TOT	178	18	4	0	0	1	0	201	128	8	4	0	0	1	0	141
P/TOT	219	32	4	0	0	1	0	256	203	17	5	0	0	1	2	228

	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	41	4	3	0	0	0	1	49	33	1	0	0	0	0	0	34
15:15	62	7	0	0	0	0	0	69	23	3	0	0	0	0	0	26
15:30	50	1	2	0	0	1	0	54	18	2	0	0	0	0	0	20
15:45	40	8	0	0	0	1	0	49	27	1	0	0	0	0	0	28
H/TOT	193	20	5	0	0	2	1	221	101	7	0	0	0	0	0	108
16:00	84	5	0	0	0	0	2	91	34	4	0	0	0	0	0	38
16:15	47	9	1	0	0	0	0	57	31	5	1	0	0	0	0	37
16:30	33	3	1	0	0	0	0	37	23	4	0	0	0	0	0	27
16:45	22	4	1	0	0	3	1	31	28	2	2	0	0	0	0	32
H/TOT	186	21	3	0	0	3	3	216	116	15	3	0	0	0	0	134
17:00	52	5	0	0	0	0	0	57	27	2	1	0	0	0	0	30
17:15	44	2	1	0	0	0	0	47	20	1	0	0	0	0	0	21
17:30	35	8	0	1	0	0	0	44	21	2	0	0	0	0	0	23
17:45	27	2	0	0	0	0	0	29	23	1	0	0	0	0	0	24
H/TOT	158	17	1	1	0	0	0	177	91	6	1	0	0	0	0	98
P/TOT	537	58	9	1	0	5	4	614	308	28	4	0	0	0	0	340

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	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	42	8	4	0	0	1	1	56	51	7	4	0	1	0	0	63
07:15	62	10	0	0	1	0	0	73	53	6	5	0	0	1	1	66
07:30	83	13	4	0	1	0	0	101	53	8	1	0	0	0	0	62
07:45	90	8	2	0	0	1	0	101	81	10	2	0	1	0	0	94
H/TOT	277	39	10	0	2	2	1	331	238	31	12	0	2	1	1	285
08:00	80	4	0	0	0	0	0	84	88	12	2	0	0	0	0	102
08:15	61	11	1	0	0	0	0	73	80	2	1	0	1	0	0	84
08:30	75	7	3	0	0	0	0	85	103	8	1	0	0	0	0	112
08:45	80	5	1	0	0	1	0	87	110	12	3	0	1	0	0	126
H/TOT	296	27	5	0	0	1	0	329	381	34	7	0	2	0	0	424
P/TOT	573	66	15	0	2	3	1	660	619	65	19	0	4	1	1	709

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	76	13	0	1	1	1	0	92	81	7	2	0	0	1	0	91
15:15	74	7	1	0	0	0	0	82	96	13	0	0	0	0	0	109
15:30	68	6	0	0	1	0	0	75	84	6	3	0	1	1	0	95
15:45	76	8	1	0	0	0	0	85	75	12	1	0	0	1	0	89
H/TOT	294	34	2	1	2	1	0	334	336	38	6	0	1	3	0	384
16:00	114	17	1	0	0	1	0	133	79	9	0	0	1	0	0	89
16:15	89	12	0	0	1	0	1	103	77	8	0	0	0	0	0	85
16:30	105	14	0	0	1	0	0	120	76	8	2	0	0	0	0	86
16:45	90	11	0	0	0	0	0	101	62	6	0	0	1	1	0	70
H/TOT	398	54	1	0	2	1	1	457	294	31	2	0	2	1	0	330
17:00	104	5	1	0	1	0	0	111	59	8	0	0	1	0	0	68
17:15	86	10	0	0	0	0	0	96	88	5	0	0	0	0	0	93
17:30	76	6	0	0	0	0	0	82	81	5	0	0	1	0	0	87
17:45	70	7	1	0	1	0	0	79	78	4	0	0	0	0	1	83
H/TOT	336	28	2	0	2	0	0	368	306	22	0	0	2	0	1	331
P/TOT	1028	116	5	1	6	2	1	1159	936	91	8	0	5	4	1	1045

14455 / BARNSLEY
SEPTEMBER 2023
CLASSIFIED TURNING COUNT

SITE: 16 DATE: 19/09/2023

LOCATION: Summer Lane/Victoria Crescent West Junction DAY: Tuesday

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	57	8	4	0	1	0	0	70	40	8	4	0	0	1	1	54
07:15	57	6	5	0	0	1	3	72	59	12	0	0	1	0	0	72
07:30	54	8	1	0	0	0	0	63	85	15	4	0	1	0	0	105
07:45	94	9	2	0	1	0	0	106	83	9	1	0	0	1	0	94
H/TOT	262	31	12	0	2	1	3	311	267	44	9	0	2	2	1	325
08:00	85	14	3	0	0	1	0	103	91	5	0	0	0	0	0	96
08:15	83	2	1	0	1	0	0	87	74	14	1	0	0	0	0	89
08:30	114	9	1	0	0	0	0	124	76	10	2	0	0	1	0	89
08:45	98	9	2	0	1	0	0	110	104	8	2	0	0	1	0	115
H/TOT	380	34	7	0	2	1	0	424	345	37	5	0	0	2	0	389
P/TOT	642	65	19	0	4	2	3	735	612	81	14	0	2	4	1	714

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	86	4	0	0	0	1	0	91	89	13	1	1	1	1	1	107
15:15	88	11	0	0	0	0	0	99	105	9	1	0	0	0	0	115
15:30	83	7	2	0	1	1	0	94	99	6	1	0	1	1	0	108
15:45	72	8	1	0	0	1	0	82	86	11	1	0	0	1	0	99
H/TOT	329	30	3	0	1	3	0	366	379	39	4	1	2	3	1	429
16:00	48	8	0	0	1	0	0	57	133	17	1	0	0	1	2	154
16:15	71	8	1	0	0	0	0	80	99	16	1	0	1	0	1	118
16:30	72	10	1	0	0	0	0	83	111	15	0	0	1	0	0	127
16:45	76	6	2	0	1	0	0	85	98	13	1	0	0	2	1	115
H/TOT	267	32	4	0	2	0	0	305	441	61	3	0	2	3	4	514
17:00	56	10	0	0	1	0	0	67	126	10	0	0	1	0	0	137
17:15	82	5	0	0	0	0	0	87	104	11	1	0	0	0	0	116
17:30	72	2	0	0	1	0	0	75	81	9	0	1	0	0	0	91
17:45	79	4	0	0	0	0	1	84	75	8	1	0	1	0	0	85
H/TOT	289	21	0	0	2	0	1	313	386	38	2	1	2	0	0	429
P/TOT	885	83	7	0	5	3	1	984	1206	138	9	2	6	6	5	1372

14455 / BARNSLEY
SEPTEMBER 2023
CLASSIFIED TURNING COUNT

SITE: 16 DATE: 19/09/2023

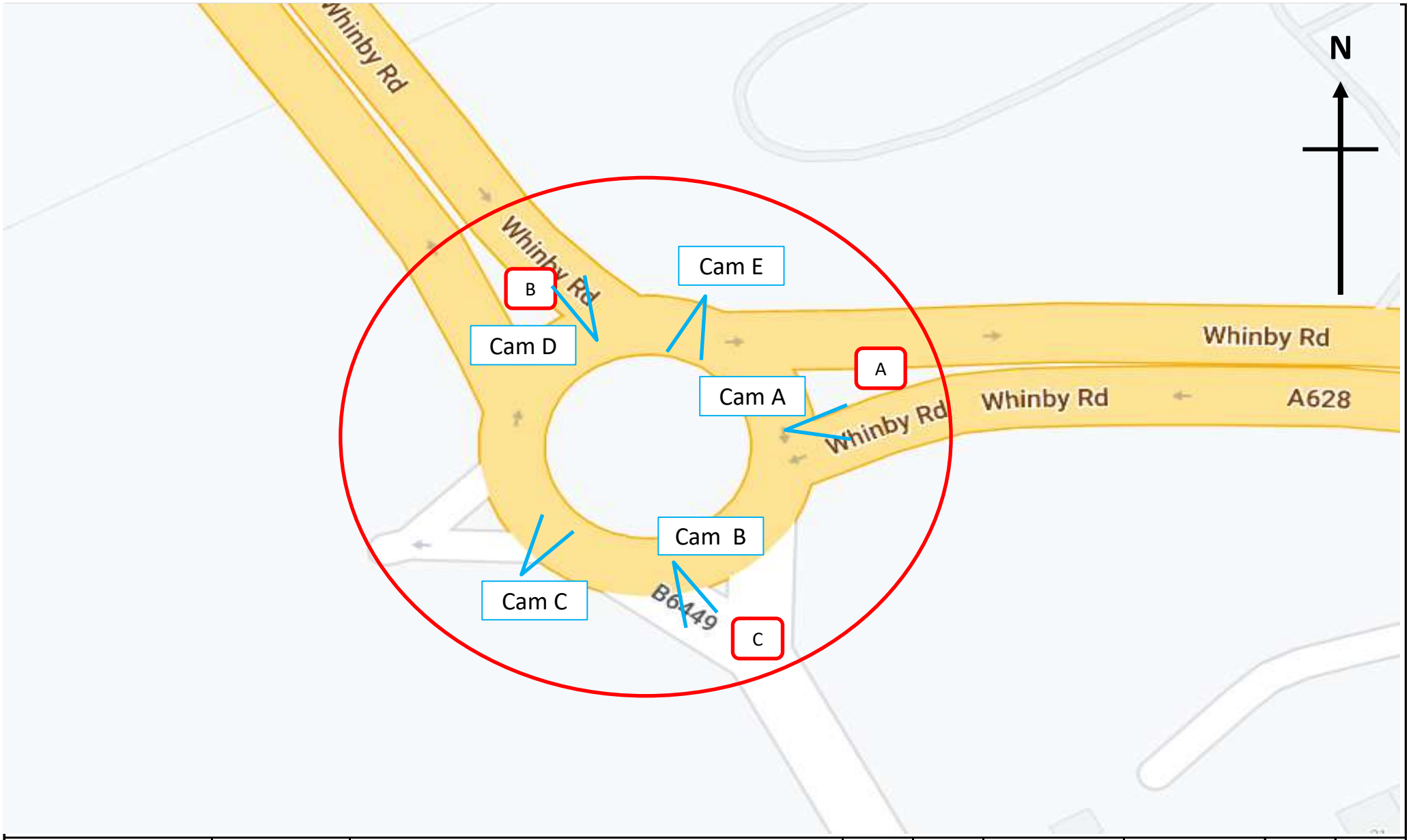
LOCATION: Summer Lane/Victoria Crescent West Junction DAY: Tuesday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	105	18	8	0	1	1	1	134
07:15	129	18	5	0	1	1	3	157
07:30	151	24	5	0	1	0	0	181
07:45	195	24	4	0	1	1	0	225
H/TOT	580	84	22	0	4	3	4	697
08:00	204	22	3	0	0	1	0	230
08:15	179	17	2	0	1	0	0	199
08:30	228	20	5	0	0	1	0	254
08:45	243	20	6	0	1	1	0	271
H/TOT	854	79	16	0	2	3	0	954
P/TOT	1434	163	38	0	6	6	4	1651

PEAK HOUR CALCULATION	TOT
07:00 to 08:00	697
07:15 to 08:15	793
07:30 to 08:30	835
07:45 to 08:45	908
08:00 to 09:00	**954**
AM PEAK	**954**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	203	21	3	1	1	2	1	232
15:15	224	25	1	0	0	0	0	250
15:30	201	14	4	0	2	2	0	223
15:45	188	24	2	0	0	2	0	216
H/TOT	816	84	10	1	3	6	1	921
16:00	246	30	1	0	1	1	2	281
16:15	207	29	2	0	1	0	1	240
16:30	210	27	2	0	1	0	0	240
16:45	188	21	3	0	1	3	1	217
H/TOT	851	107	8	0	4	4	4	978
17:00	212	20	1	0	2	0	0	235
17:15	212	17	1	0	0	0	0	230
17:30	183	16	0	1	1	0	0	201
17:45	176	13	1	0	1	0	1	192
H/TOT	783	66	3	1	4	0	1	858
P/TOT	2450	257	21	2	11	10	6	2757

PEAK HOUR CALCULATION	TOT
15:00 to 16:00	921
15:15 to 16:15	970
15:30 to 16:30	960
15:45 to 16:45	977
16:00 to 17:00	**978**
16:15 to 17:15	932
16:30 to 17:30	922
16:45 to 17:45	883
17:00 to 18:00	858
PM PEAK	**978**



NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 2, A628 Whinby Rd / B6449	**Project No:**	13258	**Drawing No:**	13258-02	**Drawn By:** BVR
	Survey Date:	Thursday 22nd September 2022	**Project Name:**	Barnsley			
	Survey Times:	07:00 to 10:00 & 15:00 to 18:00	**Drawing Title:**	Site Layout and Observed Movements			

SITE: 2 DATE: 22/09/2022

LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

	A to C								A to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	12	2	1	0	0	0	0	15	68	14	5	3	0	0	0	90
07:15	18	7	1	0	2	0	0	28	86	28	7	9	0	1	0	131
07:30	23	9	0	0	1	0	0	33	101	29	7	4	0	0	0	141
07:45	25	11	2	0	1	0	0	39	127	31	7	5	0	1	0	171
H/TOT	78	29	4	0	4	0	0	115	382	102	26	21	0	2	0	533
08:00	34	9	4	0	4	0	0	51	110	19	9	6	0	1	0	145
08:15	39	12	2	0	0	0	0	53	155	34	11	10	0	0	0	210
08:30	30	4	2	0	1	0	0	37	136	32	10	4	0	0	0	182
08:45	38	8	3	1	2	0	0	52	131	18	9	4	0	1	0	163
H/TOT	141	33	11	1	7	0	0	193	532	103	39	24	0	2	0	700
09:00	39	11	3	1	2	0	0	56	108	18	11	9	0	0	0	146
09:15	31	4	0	1	1	0	0	37	93	22	7	6	1	0	0	129
09:30	36	3	3	0	1	0	0	43	83	20	6	3	1	0	0	113
09:45	29	9	2	0	0	0	0	40	80	24	4	9	0	0	1	118
H/TOT	135	27	8	2	4	0	0	176	364	84	28	27	2	0	1	506
P/TOT	354	89	23	3	15	0	0	484	1278	289	93	72	2	4	1	1739

	A to C								A to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	78	7	2	0	0	0	0	87	108	20	9	8	0	0	0	145
15:15	71	10	1	0	1	0	0	83	105	16	10	12	0	1	0	144
15:30	73	11	4	0	1	0	1	90	118	24	8	5	0	0	0	155
15:45	73	17	2	0	1	0	0	93	112	33	6	9	0	0	0	160
H/TOT	295	45	9	0	3	0	1	353	443	93	33	34	0	1	0	604
16:00	91	16	1	1	3	0	0	112	124	30	9	9	0	0	0	172
16:15	89	12	1	0	1	1	0	104	143	18	4	11	0	1	0	177
16:30	87	13	3	1	2	1	1	108	150	17	5	9	1	2	0	184
16:45	110	13	1	1	2	1	0	128	176	36	6	4	0	0	0	222
H/TOT	377	54	6	3	8	3	1	452	593	101	24	33	1	3	0	755
17:00	103	23	0	1	0	0	0	127	151	28	7	9	2	1	0	198
17:15	108	16	1	0	1	0	0	126	179	13	6	7	1	0	1	207
17:30	127	16	2	0	1	1	0	147	196	16	2	4	0	1	0	219
17:45	123	10	0	0	1	1	0	135	146	23	4	3	0	0	0	176
H/TOT	461	65	3	1	3	2	0	535	672	80	19	23	3	2	1	800
P/TOT	1133	164	18	4	14	5	2	1340	1708	274	76	90	4	6	1	2159

SITE: 2 DATE: 22/09/2022

LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

TIME	A to A CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	6	3	0	0	0	0	0	9
07:15	3	0	0	0	1	0	0	4
07:30	1	1	0	0	1	0	0	3
07:45	1	2	0	0	0	0	0	3
H/TOT	11	6	0	0	2	0	0	19
08:00	3	0	1	0	0	0	0	4
08:15	6	0	0	0	0	0	0	6
08:30	4	0	0	0	0	0	0	4
08:45	2	0	1	0	0	0	0	3
H/TOT	15	0	2	0	0	0	0	17
09:00	1	1	0	0	0	0	0	2
09:15	9	2	2	0	0	0	0	13
09:30	5	0	1	0	0	0	0	6
09:45	6	1	1	0	0	0	0	8
H/TOT	21	4	4	0	0	0	0	29
P/TOT	47	10	6	0	2	0	0	65

TIME	A to A CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	4	0	0	0	0	0	0	4
15:15	3	0	0	0	0	0	0	3
15:30	7	0	0	0	0	0	0	7
15:45	5	0	0	0	0	0	0	5
H/TOT	19	0	0	0	0	0	0	19
16:00	6	0	0	0	0	0	0	6
16:15	8	1	0	0	0	0	0	9
16:30	5	1	0	0	0	0	0	6
16:45	6	0	0	0	0	0	0	6
H/TOT	25	2	0	0	0	0	0	27
17:00	7	2	0	0	1	0	0	10
17:15	11	1	0	0	0	0	0	12
17:30	16	2	2	0	0	0	0	20
17:45	15	3	0	0	1	0	0	19
H/TOT	49	8	2	0	2	0	0	61
P/TOT	93	10	2	0	2	0	0	107

SITE: 2 DATE: 22/09/2022

LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

	B to A								B to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	124	31	5	8	1	0	0	169	4	0	0	0	0	0	0	4
07:15	155	24	12	8	1	1	0	201	7	1	0	0	0	0	0	8
07:30	167	30	10	3	0	0	0	210	11	0	0	0	1	0	0	12
07:45	155	35	6	6	0	0	1	203	12	1	0	0	0	0	1	14
H/TOT	601	120	33	25	2	1	1	783	34	2	0	0	1	0	1	38
08:00	156	26	8	8	0	0	0	198	15	3	1	0	0	0	0	19
08:15	119	21	7	4	2	1	0	154	12	2	1	0	0	0	0	15
08:30	107	16	6	8	1	0	0	138	7	1	1	0	0	0	0	9
08:45	114	20	7	16	2	0	1	160	8	1	1	0	0	0	0	10
H/TOT	496	83	28	36	5	1	1	650	42	7	4	0	0	0	0	53
09:00	135	21	10	7	0	0	0	173	20	2	0	0	0	0	0	22
09:15	91	18	7	7	0	0	0	123	13	0	0	0	0	0	0	13
09:30	87	19	9	6	0	0	0	121	16	2	0	0	0	0	0	18
09:45	68	20	7	9	0	0	0	104	20	4	1	0	0	0	0	25
H/TOT	381	78	33	29	0	0	0	521	69	8	1	0	0	0	0	78
P/TOT	1478	281	94	90	7	2	2	1954	145	17	5	0	1	0	1	169

	B to A								B to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	119	32	7	4	1	0	0	163	20	4	1	0	0	1	0	26
15:15	123	26	4	6	0	1	0	160	25	2	0	0	0	0	0	27
15:30	105	30	11	8	0	0	0	154	24	2	1	0	0	0	0	27
15:45	101	20	3	4	0	0	0	128	24	3	0	0	0	0	0	27
H/TOT	448	108	25	22	1	1	0	605	93	11	2	0	0	1	0	107
16:00	152	38	6	4	1	0	0	201	21	3	0	0	0	0	0	24
16:15	126	21	6	3	0	0	0	156	18	2	1	0	0	0	0	21
16:30	158	27	7	2	0	0	1	195	27	4	0	0	0	0	0	31
16:45	137	24	5	3	0	1	0	170	23	5	0	0	0	0	0	28
H/TOT	573	110	24	12	1	1	1	722	89	14	1	0	0	0	0	104
17:00	221	14	4	7	1	0	0	247	40	2	0	0	0	0	0	42
17:15	129	15	7	4	0	0	0	155	33	2	0	0	0	1	0	36
17:30	107	9	3	4	0	0	0	123	21	3	0	0	0	0	0	24
17:45	119	17	2	3	0	2	0	143	18	7	0	0	0	0	0	25
H/TOT	576	55	16	18	1	2	0	668	112	14	0	0	0	1	0	127
P/TOT	1597	273	65	52	3	4	1	1995	294	39	3	0	0	2	0	338

SITE: 2 DATE: 22/09/2022

LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

TIME	CAR	LGV	OGV1	B to B OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	1	0	0	0	0	0	1
H/TOT	0	1	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	1	0	0	0	0	0	0	1
09:45	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	0	0	1
P/TOT	1	1	0	0	0	0	0	2

TIME	CAR	LGV	OGV1	B to B OGV2	PSV	MCL	PCL	TOT
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	1	0	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	0	0	1
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
P/TOT	1	0	0	0	0	0	0	1

SITE: 2 DATE: 22/09/2022

LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

	C to B								C to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	8	2	1	0	0	0	0	11	89	12	1	0	5	0	0	107
07:15	8	3	0	0	0	0	0	11	88	14	1	0	0	1	0	104
07:30	10	3	1	0	0	0	0	14	98	23	1	0	1	2	0	125
07:45	17	3	0	0	0	0	0	20	97	18	0	0	0	0	0	115
H/TOT	43	11	2	0	0	0	0	56	372	67	3	0	6	3	0	451
08:00	10	1	0	1	0	0	0	12	80	6	1	0	2	0	0	89
08:15	22	1	0	0	0	0	0	23	75	7	1	0	0	0	0	83
08:30	16	1	0	0	0	0	0	17	69	11	3	0	0	0	0	83
08:45	24	4	2	0	0	0	0	30	52	4	1	1	2	1	0	61
H/TOT	72	7	2	1	0	0	0	82	276	28	6	1	4	1	0	316
09:00	8	2	0	0	0	0	0	10	47	8	3	1	1	0	0	60
09:15	13	2	0	0	0	0	0	15	38	4	3	0	1	0	0	46
09:30	8	1	0	0	0	0	0	9	51	7	2	0	1	0	0	61
09:45	8	3	0	0	0	0	0	11	48	6	2	0	1	1	0	58
H/TOT	37	8	0	0	0	0	0	45	184	25	10	1	4	1	0	225
P/TOT	152	26	4	1	0	0	0	183	832	120	19	2	14	5	0	992

	C to B								C to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	14	5	0	0	0	0	0	19	36	8	0	0	1	1	0	46
15:15	7	0	1	0	1	0	0	9	45	7	3	0	0	0	0	55
15:30	14	2	1	0	0	0	0	17	51	6	1	0	5	0	0	63
15:45	14	3	0	0	0	0	0	17	55	10	2	0	1	0	0	68
H/TOT	49	10	2	0	1	0	0	62	187	31	6	0	7	1	0	232
16:00	12	7	0	0	0	1	0	20	42	9	2	0	0	0	0	53
16:15	10	1	1	0	0	0	0	12	48	9	2	0	2	0	0	61
16:30	16	1	0	0	0	0	0	17	45	15	0	0	1	0	0	61
16:45	11	3	1	0	0	0	0	15	46	7	0	0	1	0	0	54
H/TOT	49	12	2	0	0	1	0	64	181	40	4	0	4	0	0	229
17:00	12	2	0	0	0	0	0	14	54	9	1	0	0	0	0	64
17:15	11	2	0	0	0	0	0	13	37	14	0	0	1	0	0	52
17:30	8	2	0	0	0	0	0	10	53	7	0	0	1	0	1	62
17:45	14	1	0	0	0	0	0	15	46	5	1	0	1	0	0	53
H/TOT	45	7	0	0	0	0	0	52	190	35	2	0	3	0	1	231
P/TOT	143	29	4	0	1	1	0	178	558	106	12	0	14	1	1	692

SITE: 2 DATE: 22/09/2022

LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

TIME	C to C CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

TIME	C to C CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	2	0	0	0	0	0	0	2
H/TOT	2	0	0	0	0	0	0	2
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
P/TOT	2	0	0	0	0	0	0	2

SITE: 2 DATE: 22/09/2022

LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

	TO ARM A								FROM ARM A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	219	46	6	8	6	0	0	285	86	19	6	3	0	0	0	114
07:15	246	38	13	8	2	2	0	309	107	35	8	9	3	1	0	163
07:30	266	54	11	3	2	2	0	338	125	39	7	4	2	0	0	177
07:45	253	55	6	6	0	0	1	321	153	44	9	5	1	1	0	213
H/TOT	984	193	36	25	10	4	1	1253	471	137	30	21	6	2	0	667
08:00	239	32	10	8	2	0	0	291	147	28	14	6	4	1	0	200
08:15	200	28	8	4	2	1	0	243	200	46	13	10	0	0	0	269
08:30	180	27	9	8	1	0	0	225	170	36	12	4	1	0	0	223
08:45	178	24	9	17	4	1	1	234	171	26	13	5	2	1	0	218
H/TOT	797	111	36	37	9	2	1	993	688	136	52	25	7	2	0	910
09:00	183	30	13	8	1	0	0	235	148	30	14	10	2	0	0	204
09:15	138	24	12	7	1	0	0	182	133	28	9	7	2	0	0	179
09:30	143	26	12	6	1	0	0	188	124	23	10	3	2	0	0	162
09:45	122	27	10	9	1	1	0	170	115	34	7	9	0	0	1	166
H/TOT	586	107	47	30	4	1	0	775	520	115	40	29	6	0	1	711
P/TOT	2367	411	119	92	23	7	2	3021	1679	388	122	75	19	4	1	2288

	TO ARM A								FROM ARM A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	159	40	7	4	2	1	0	213	190	27	11	8	0	0	0	236
15:15	171	33	7	6	0	1	0	218	179	26	11	12	1	1	0	230
15:30	163	36	12	8	5	0	0	224	198	35	12	5	1	0	1	252
15:45	161	30	5	4	1	0	0	201	190	50	8	9	1	0	0	258
H/TOT	654	139	31	22	8	2	0	856	757	138	42	34	3	1	1	976
16:00	200	47	8	4	1	0	0	260	221	46	10	10	3	0	0	290
16:15	182	31	8	3	2	0	0	226	240	31	5	11	1	2	0	290
16:30	208	43	7	2	1	0	1	262	242	31	8	10	3	3	1	298
16:45	189	31	5	3	1	1	0	230	292	49	7	5	2	1	0	356
H/TOT	779	152	28	12	5	1	1	978	995	157	30	36	9	6	1	1234
17:00	282	25	5	7	2	0	0	321	261	53	7	10	3	1	0	335
17:15	177	30	7	4	1	0	0	219	298	30	7	7	2	0	1	345
17:30	176	18	5	4	1	0	1	205	339	34	6	4	1	2	0	386
17:45	180	25	3	3	2	2	0	215	284	36	4	3	2	1	0	330
H/TOT	815	98	20	18	6	2	1	960	1182	153	24	24	8	4	1	1396
P/TOT	2248	389	79	52	19	5	2	2794	2934	448	96	94	20	11	3	3606

SITE: 2 DATE: 22/09/2022

LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	76	16	6	3	0	0	0	101	128	31	5	8	1	0	0	173
07:15	94	31	7	9	0	1	0	142	162	25	12	8	1	1	0	209
07:30	111	32	8	4	0	0	0	155	178	30	10	3	1	0	0	222
07:45	144	35	7	5	0	1	0	192	167	37	6	6	0	0	2	218
H/TOT	425	114	28	21	0	2	0	590	635	123	33	25	3	1	2	822
08:00	120	20	9	7	0	1	0	157	171	29	9	8	0	0	0	217
08:15	177	35	11	10	0	0	0	233	131	23	8	4	2	1	0	169
08:30	152	33	10	4	0	0	0	199	114	17	7	8	1	0	0	147
08:45	155	22	11	4	0	1	0	193	122	21	8	16	2	0	1	170
H/TOT	604	110	41	25	0	2	0	782	538	90	32	36	5	1	1	703
09:00	116	20	11	9	0	0	0	156	155	23	10	7	0	0	0	195
09:15	106	24	7	6	1	0	0	144	104	18	7	7	0	0	0	136
09:30	92	21	6	3	1	0	0	123	104	21	9	6	0	0	0	140
09:45	88	27	4	9	0	0	1	129	88	24	8	9	0	0	0	129
H/TOT	402	92	28	27	2	0	1	552	451	86	34	29	0	0	0	600
P/TOT	1431	316	97	73	2	4	1	1924	1624	299	99	90	8	2	3	2125

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	122	25	9	8	0	0	0	164	139	36	8	4	1	1	0	189
15:15	112	16	11	12	1	1	0	153	148	28	4	6	0	1	0	187
15:30	132	26	9	5	0	0	0	172	129	32	12	8	0	0	0	181
15:45	126	36	6	9	0	0	0	177	125	23	3	4	0	0	0	155
H/TOT	492	103	35	34	1	1	0	666	541	119	27	22	1	2	0	712
16:00	136	37	9	9	0	1	0	192	173	41	6	4	1	0	0	225
16:15	153	19	5	11	0	1	0	189	144	23	7	3	0	0	0	177
16:30	167	18	5	9	1	2	0	202	186	31	7	2	0	0	1	227
16:45	187	39	7	4	0	0	0	237	160	29	5	3	0	1	0	198
H/TOT	643	113	26	33	1	4	0	820	663	124	25	12	1	1	1	827
17:00	163	30	7	9	2	1	0	212	261	16	4	7	1	0	0	289
17:15	190	15	6	7	1	0	1	220	162	17	7	4	0	1	0	191
17:30	204	18	2	4	0	1	0	229	128	12	3	4	0	0	0	147
17:45	160	24	4	3	0	0	0	191	137	24	2	3	0	2	0	168
H/TOT	717	87	19	23	3	2	1	852	688	69	16	18	1	3	0	795
P/TOT	1852	303	80	90	5	7	1	2338	1892	312	68	52	3	6	1	2334

SITE: 2 DATE: 22/09/2022

LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	16	2	1	0	0	0	0	19	97	14	2	0	5	0	0	118
07:15	25	8	1	0	2	0	0	36	96	17	1	0	0	1	0	115
07:30	34	9	0	0	2	0	0	45	108	26	2	0	1	2	0	139
07:45	37	12	2	0	1	0	1	53	114	21	0	0	0	0	0	135
H/TOT	112	31	4	0	5	0	1	153	415	78	5	0	6	3	0	507
08:00	49	12	5	0	4	0	0	70	90	7	1	1	2	0	0	101
08:15	51	14	3	0	0	0	0	68	97	8	1	0	0	0	0	106
08:30	37	5	3	0	1	0	0	46	85	12	3	0	0	0	0	100
08:45	46	9	4	1	2	0	0	62	76	8	3	1	2	1	0	91
H/TOT	183	40	15	1	7	0	0	246	348	35	8	2	4	1	0	398
09:00	59	13	3	1	2	0	0	78	55	10	3	1	1	0	0	70
09:15	44	4	0	1	1	0	0	50	51	6	3	0	1	0	0	61
09:30	52	5	3	0	1	0	0	61	59	8	2	0	1	0	0	70
09:45	49	13	3	0	0	0	0	65	56	9	2	0	1	1	0	69
H/TOT	204	35	9	2	4	0	0	254	221	33	10	1	4	1	0	270
P/TOT	499	106	28	3	16	0	1	653	984	146	23	3	14	5	0	1175

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	98	11	3	0	0	1	0	113	50	13	0	0	1	1	0	65
15:15	96	12	1	0	1	0	0	110	52	7	4	0	1	0	0	64
15:30	97	13	5	0	1	0	1	117	65	8	2	0	5	0	0	80
15:45	97	20	2	0	1	0	0	120	69	13	2	0	1	0	0	85
H/TOT	388	56	11	0	3	1	1	460	236	41	8	0	8	1	0	294
16:00	112	19	1	1	3	0	0	136	54	16	2	0	0	1	0	73
16:15	107	14	2	0	1	1	0	125	58	10	3	0	2	0	0	73
16:30	114	17	3	1	2	1	1	139	61	16	0	0	1	0	0	78
16:45	135	18	1	1	2	1	0	158	59	10	1	0	1	0	0	71
H/TOT	468	68	7	3	8	3	1	558	232	52	6	0	4	1	0	295
17:00	143	25	0	1	0	0	0	169	66	11	1	0	0	0	0	78
17:15	141	18	1	0	1	1	0	162	48	16	0	0	1	0	0	65
17:30	148	19	2	0	1	1	0	171	61	9	0	0	1	0	1	72
17:45	141	17	0	0	1	1	0	160	60	6	1	0	1	0	0	68
H/TOT	573	79	3	1	3	3	0	662	235	42	2	0	3	0	1	283
P/TOT	1429	203	21	4	14	7	2	1680	703	135	16	0	15	2	1	872

SITE: 2 DATE: 22/09/2022

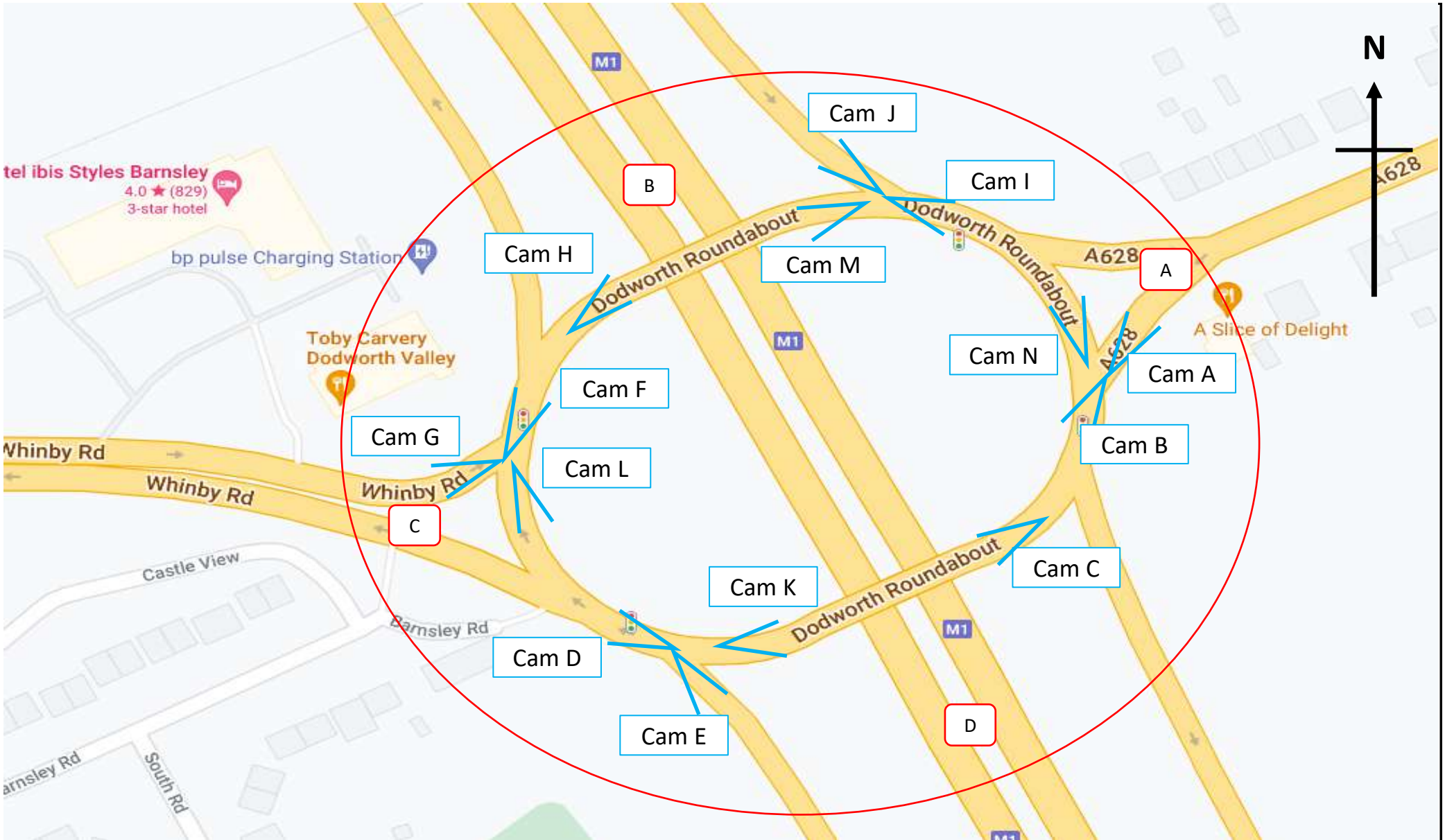
LOCATION: A628 Whinby Rd / B6449 DAY: Thursday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	311	64	13	11	6	0	0	405
07:15	365	77	21	17	4	3	0	487
07:30	411	95	19	7	4	2	0	538
07:45	434	102	15	11	1	1	2	566
H/TOT	1521	338	68	46	15	6	2	1996
08:00	408	64	24	15	6	1	0	518
08:15	428	77	22	14	2	1	0	544
08:30	369	65	22	12	2	0	0	470
08:45	379	55	24	22	6	2	1	489
H/TOT	1584	261	92	63	16	4	1	2021
09:00	358	63	27	18	3	0	0	469
09:15	288	52	19	14	3	0	0	376
09:30	287	52	21	9	3	0	0	372
09:45	259	67	17	18	1	1	1	364
H/TOT	1192	234	84	59	10	1	1	1581
P/TOT	4297	833	244	168	41	11	4	5598

PEAK HOUR CALCULATION	TOT
07:00 to 08:00	1996
07:15 to 08:15	2109
07:30 to 08:30	**2166**
07:45 to 08:45	2098
08:00 to 09:00	2021
08:15 to 09:15	1972
08:30 to 09:30	1804
08:45 to 09:45	1706
09:00 to 10:00	1581
PEAK VALUE	**2166**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	379	76	19	12	2	2	0	490
15:15	379	61	19	18	2	2	0	481
15:30	392	75	26	13	6	0	1	513
15:45	384	86	13	13	2	0	0	498
H/TOT	1534	298	77	56	12	4	1	1982
16:00	448	103	18	14	4	1	0	588
16:15	442	64	15	14	3	2	0	540
16:30	489	78	15	12	4	3	2	603
16:45	511	88	13	8	3	2	0	625
H/TOT	1890	333	61	48	14	8	2	2356
17:00	588	80	12	17	4	1	0	702
17:15	508	63	14	11	3	1	1	601
17:30	528	55	9	8	2	2	1	605
17:45	481	66	7	6	3	3	0	566
H/TOT	2105	264	42	42	12	7	2	2474
P/TOT	5529	895	180	146	38	19	5	6812

PEAK HOUR CALCULATION	TOT
15:00 to 16:00	1982
15:15 to 16:15	2080
15:30 to 16:30	2139
15:45 to 16:45	2229
16:00 to 17:00	2356
16:15 to 17:15	2470
16:30 to 17:30	2531
16:45 to 17:45	**2533**
18:00 to 19:00	2474
PEAK VALUE	**2533**



NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 1, Dod Worth Roundabout	**Project No:**	13258	**Drawing No:**	13258-01	**Drawn By:** BVR
	Survey Date:	Thursday 22nd September 2022	**Project Name:**	Barnsley			
	Survey Times:	07:00 to 10:00 & 15:00 to 18:00	**Drawing Title:**	Site Layout and Observed Movements			

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	A to D								A to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	84	33	2	5	0	0	0	124	26	5	0	0	0	0	0	31
07:15	101	31	7	3	0	0	0	142	25	9	1	2	2	1	0	40
07:30	106	24	6	2	0	0	0	138	25	7	1	0	1	0	0	34
07:45	99	23	0	5	0	0	0	127	24	7	2	0	1	1	0	35
H/TOT	390	111	15	15	0	0	0	531	100	28	4	2	4	2	0	140
08:00	111	29	3	3	0	0	0	146	53	6	1	0	4	1	0	65
08:15	83	21	6	2	0	1	0	113	59	9	3	4	0	0	0	75
08:30	74	13	4	0	0	0	0	91	46	7	2	0	1	0	0	56
08:45	58	10	5	2	0	0	0	75	66	6	7	0	2	0	0	81
H/TOT	326	73	18	7	0	1	0	425	224	28	13	4	7	1	0	277
09:00	86	16	7	10	0	1	0	120	60	8	1	0	2	0	0	71
09:15	67	11	8	6	0	1	0	93	54	13	4	0	0	0	0	71
09:30	49	6	8	1	0	0	0	64	51	10	4	0	1	0	0	66
09:45	43	9	4	3	0	0	0	59	48	14	4	4	0	0	1	71
H/TOT	245	42	27	20	0	2	0	336	213	45	13	4	3	0	1	279
P/TOT	961	226	60	42	0	3	0	1292	537	101	30	10	14	3	1	696

	A to D								A to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	64	22	8	2	0	0	0	96	77	6	4	2	0	0	0	89
15:15	60	18	2	6	0	0	0	86	72	7	2	2	1	0	0	84
15:30	88	26	2	2	0	0	0	118	75	2	2	2	1	0	1	83
15:45	74	22	0	2	0	0	0	98	65	6	0	0	1	0	0	72
H/TOT	286	88	12	12	0	0	0	398	289	21	8	6	3	0	1	328
16:00	93	10	5	2	0	0	0	110	76	2	2	0	3	0	0	83
16:15	103	16	0	4	0	0	0	123	73	5	1	0	1	1	0	81
16:30	91	23	0	0	0	0	0	114	72	9	3	1	1	1	0	87
16:45	114	16	1	0	0	0	0	131	85	5	2	0	2	1	0	95
H/TOT	401	65	6	6	0	0	0	478	306	21	8	1	7	3	0	346
17:00	107	9	1	3	0	0	0	120	60	7	0	0	2	0	0	69
17:15	117	8	2	2	1	0	0	130	77	5	0	0	1	0	1	84
17:30	99	11	0	1	0	1	0	112	96	4	0	1	1	1	0	103
17:45	81	5	1	3	0	0	0	90	84	10	3	0	1	1	0	99
H/TOT	404	33	4	9	1	1	0	452	317	26	3	1	5	2	1	355
P/TOT	1091	186	22	27	1	1	0	1328	912	68	19	8	15	5	2	1029

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	A to B								A to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	81	27	8	1	0	1	0	118	0	0	0	0	0	0	0	0
07:15	67	30	1	0	0	0	0	98	0	0	0	0	0	0	0	0
07:30	85	23	1	3	0	0	0	112	0	0	0	0	0	0	0	0
07:45	67	19	2	1	0	0	0	89	0	0	0	0	0	0	0	0
H/TOT	300	99	12	5	0	1	0	417	0	0	0	0	0	0	0	0
08:00	69	16	3	1	0	0	0	89	0	0	0	0	0	0	0	0
08:15	71	15	2	2	0	0	0	90	0	0	0	0	0	0	0	0
08:30	44	5	3	2	0	2	0	56	0	0	0	0	0	0	0	0
08:45	29	10	3	3	0	0	0	45	0	0	0	0	0	0	0	0
H/TOT	213	46	11	8	0	2	0	280	0	0	0	0	0	0	0	0
09:00	57	15	6	1	0	0	0	79	0	0	0	0	0	0	0	0
09:15	48	6	8	3	0	0	0	65	0	0	0	0	0	0	0	0
09:30	33	9	2	3	0	1	0	48	0	0	0	0	0	0	0	0
09:45	28	8	2	3	0	1	0	42	0	0	0	0	0	0	0	0
H/TOT	166	38	18	10	0	2	0	234	0	0	0	0	0	0	0	0
P/TOT	679	183	41	23	0	5	0	931	0	0	0	0	0	0	0	0

	A to B								A to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	44	16	4	0	0	0	0	64	0	0	0	0	0	0	0	0
15:15	42	9	6	1	0	0	0	58	0	0	0	0	0	0	0	0
15:30	49	12	2	2	1	0	0	66	0	0	0	0	0	0	0	0
15:45	41	7	0	1	0	0	0	49	0	0	0	0	0	0	0	0
H/TOT	176	44	12	4	1	0	0	237	0	0	0	0	0	0	0	0
16:00	32	9	1	0	0	0	0	42	0	0	0	0	0	0	0	0
16:15	49	7	4	0	1	0	0	61	0	0	0	0	0	0	0	0
16:30	69	9	4	0	0	0	2	84	0	0	0	0	0	0	0	0
16:45	48	0	1	2	0	0	0	51	0	0	0	0	0	0	0	0
H/TOT	198	25	10	2	1	0	2	238	0	0	0	0	0	0	0	0
17:00	70	6	1	2	0	0	0	79	0	0	0	0	0	0	0	0
17:15	66	2	4	2	0	0	0	74	0	0	0	0	0	0	0	0
17:30	45	10	2	2	0	0	0	59	0	0	0	0	0	0	0	0
17:45	44	1	1	0	0	1	0	47	0	0	0	0	0	0	0	0
H/TOT	225	19	8	6	0	1	0	259	0	0	0	0	0	0	0	0
P/TOT	599	88	30	12	2	1	2	734	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	B to A								B to D							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	42	7	1	5	0	0	0	55	0	0	0	0	0	0	0	0
07:15	47	16	4	2	0	0	0	69	0	0	0	0	0	0	0	0
07:30	59	13	5	6	0	0	0	83	0	0	0	0	0	0	0	0
07:45	68	13	7	1	0	0	0	89	1	0	0	0	0	0	0	1
H/TOT	216	49	17	14	0	0	0	296	1	0	0	0	0	0	0	1
08:00	64	9	5	3	0	0	0	81	0	0	0	0	0	0	0	0
08:15	49	17	3	0	0	0	0	69	0	0	0	0	0	0	0	0
08:30	75	13	7	4	0	0	0	99	0	0	0	0	0	0	0	0
08:45	70	8	5	2	0	0	0	85	0	0	0	0	0	0	0	0
H/TOT	258	47	20	9	0	0	0	334	0	0	0	0	0	0	0	0
09:00	54	8	5	3	0	0	0	70	1	1	0	0	0	0	0	2
09:15	46	6	2	1	0	0	0	55	0	0	0	0	0	0	0	0
09:30	38	6	4	0	0	0	0	48	0	0	0	0	0	0	0	0
09:45	49	10	2	2	0	0	0	63	0	0	0	0	0	0	0	0
H/TOT	187	30	13	6	0	0	0	236	1	1	0	0	0	0	0	2
P/TOT	661	126	50	29	0	0	0	866	2	1	0	0	0	0	0	3

	B to A								B to D							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	36	21	4	0	0	1	0	62	0	0	0	0	0	0	0	0
15:15	55	17	4	1	0	0	0	77	0	0	0	0	0	0	0	0
15:30	68	28	4	0	0	0	0	100	0	0	0	0	0	0	0	0
15:45	59	26	3	1	0	0	0	89	0	0	0	0	0	0	0	0
H/TOT	218	92	15	2	0	1	0	328	0	0	0	0	0	0	0	0
16:00	63	27	4	1	0	0	0	95	0	0	0	0	0	0	0	0
16:15	72	21	5	0	0	0	0	98	0	0	0	0	0	0	0	0
16:30	83	21	3	0	0	0	0	107	0	0	0	0	0	0	0	0
16:45	107	16	6	3	0	0	0	132	1	0	0	0	0	0	0	1
H/TOT	325	85	18	4	0	0	0	432	1	0	0	0	0	0	0	1
17:00	100	21	3	1	0	0	0	125	0	1	0	0	0	0	0	1
17:15	82	16	2	1	0	0	0	101	1	0	0	0	0	0	0	1
17:30	94	12	0	1	0	1	0	108	2	1	0	0	0	0	0	3
17:45	103	11	0	2	0	0	0	116	0	0	0	0	0	0	0	0
H/TOT	379	60	5	5	0	1	0	450	3	2	0	0	0	0	0	5
P/TOT	922	237	38	11	0	2	0	1210	4	2	0	0	0	0	0	6

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	B to C								B to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	25	7	4	1	0	0	0	37	0	0	0	0	0	0	0	0
07:15	29	8	3	1	0	0	0	41	0	0	0	0	0	0	0	0
07:30	28	12	2	1	0	0	0	43	0	0	0	0	0	0	0	0
07:45	56	14	6	2	0	0	0	78	0	0	0	0	0	0	0	0
H/TOT	138	41	15	5	0	0	0	199	0	0	0	0	0	0	0	0
08:00	33	3	7	2	0	0	0	45	0	0	0	0	0	0	0	0
08:15	44	18	3	1	0	0	0	66	0	0	0	0	0	0	0	0
08:30	36	6	6	1	0	0	0	49	0	0	0	0	0	0	0	0
08:45	32	7	1	3	0	1	0	44	0	0	0	0	0	0	0	0
H/TOT	145	34	17	7	0	1	0	204	0	0	0	0	0	0	0	0
09:00	38	11	2	2	0	0	0	53	0	0	0	0	0	0	0	0
09:15	21	3	1	5	0	0	0	30	0	0	0	0	0	0	0	0
09:30	28	6	2	0	0	0	0	36	0	0	0	0	0	0	0	0
09:45	32	6	1	4	0	0	0	43	0	0	0	0	0	0	0	0
H/TOT	119	26	6	11	0	0	0	162	0	0	0	0	0	0	0	0
P/TOT	402	101	38	23	0	1	0	565	0	0	0	0	0	0	0	0

	B to C								B to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	47	5	0	2	0	0	0	54	0	0	0	0	0	0	0	0
15:15	36	9	4	3	0	0	0	52	0	0	0	0	0	0	0	0
15:30	50	8	5	1	0	0	0	64	0	0	0	0	0	0	0	0
15:45	49	14	5	4	0	0	0	72	0	0	0	0	0	0	0	0
H/TOT	182	36	14	10	0	0	0	242	0	0	0	0	0	0	0	0
16:00	54	18	1	3	0	0	0	76	0	0	0	0	0	0	0	0
16:15	62	13	1	2	0	0	0	78	0	0	0	0	0	0	0	0
16:30	81	9	1	2	1	1	1	96	0	0	0	0	0	0	0	0
16:45	92	20	3	2	0	0	0	117	0	0	0	0	0	0	0	0
H/TOT	289	60	6	9	1	1	1	367	0	0	0	0	0	0	0	0
17:00	82	21	3	3	0	0	0	109	0	0	0	0	0	0	0	0
17:15	104	13	3	3	1	0	0	124	0	0	0	0	0	0	0	0
17:30	112	12	1	0	0	1	0	126	0	0	0	0	0	0	0	0
17:45	80	10	2	2	1	0	0	95	0	0	0	0	0	0	0	0
H/TOT	378	56	9	8	2	1	0	454	0	0	0	0	0	0	0	0
P/TOT	849	152	29	27	3	2	1	1063	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	C to B								C to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	75	20	2	4	0	0	0	101	51	3	1	1	4	0	0	60
07:15	78	11	4	2	0	0	0	95	51	4	2	0	0	1	0	58
07:30	105	19	1	1	1	1	0	128	58	6	6	1	2	1	0	74
07:45	92	20	1	0	0	0	0	113	53	1	0	1	0	0	1	56
H/TOT	350	70	8	7	1	1	0	437	213	14	9	3	6	2	1	248
08:00	79	11	1	0	0	0	0	91	71	10	2	2	2	0	0	87
08:15	48	12	2	0	0	1	0	63	50	2	3	0	1	0	0	56
08:30	57	12	3	2	0	0	0	74	64	1	2	0	2	0	0	69
08:45	43	11	3	1	0	0	0	58	68	4	2	6	3	1	0	84
H/TOT	227	46	9	3	0	1	0	286	253	17	9	8	8	1	0	296
09:00	50	10	5	3	0	0	0	68	59	7	1	4	0	0	1	72
09:15	30	5	6	1	0	0	0	42	46	8	3	0	1	0	0	58
09:30	30	5	3	3	0	0	0	41	61	12	3	2	1	0	0	79
09:45	18	7	3	3	0	0	0	31	60	6	1	2	1	1	0	71
H/TOT	128	27	17	10	0	0	0	182	226	33	8	8	3	1	1	280
P/TOT	705	143	34	20	1	2	0	905	692	64	26	19	17	4	2	824

	C to B								C to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	29	6	1	1	0	0	0	37	74	18	2	0	2	1	0	97
15:15	31	4	4	0	0	0	0	39	67	10	1	1	0	1	0	80
15:30	29	8	4	6	0	0	0	47	73	2	2	0	5	0	0	82
15:45	34	6	0	2	0	0	0	42	75	10	0	0	1	0	0	86
H/TOT	123	24	9	9	0	0	0	165	289	40	5	1	8	2	0	345
16:00	41	16	2	1	0	0	0	60	82	6	2	2	1	0	0	93
16:15	42	9	0	0	0	0	0	51	54	9	4	0	2	0	0	69
16:30	40	9	0	0	0	0	0	49	84	13	2	0	1	0	1	101
16:45	31	8	4	1	0	0	0	44	75	10	1	0	1	1	0	88
H/TOT	154	42	6	2	0	0	0	204	295	38	9	2	5	1	1	351
17:00	69	6	0	1	1	0	0	77	107	6	1	2	0	0	0	116
17:15	42	8	1	2	0	0	0	53	52	11	0	1	1	0	1	66
17:30	39	5	1	0	0	0	0	45	59	5	0	0	1	0	1	66
17:45	34	5	1	0	0	0	0	40	81	11	0	0	1	1	0	94
H/TOT	184	24	3	3	1	0	0	215	299	33	1	3	3	1	2	342
P/TOT	461	90	18	14	1	0	0	584	883	111	15	6	16	4	3	1038

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	C to D								C to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	82	26	3	3	2	0	0	116	0	0	0	0	0	0	0	0
07:15	113	22	6	5	1	1	0	148	0	0	0	0	0	0	0	0
07:30	116	32	5	2	0	0	0	155	1	0	0	0	0	0	0	1
07:45	110	28	5	5	0	0	0	148	1	0	0	0	0	0	0	1
H/TOT	421	108	19	15	3	1	0	567	2	0	0	0	0	0	0	2
08:00	85	14	7	6	0	0	0	112	2	1	0	0	0	0	0	3
08:15	86	18	4	2	0	0	0	110	0	0	0	0	0	0	0	0
08:30	79	8	3	8	0	0	0	98	1	0	0	0	0	0	0	1
08:45	79	11	4	9	1	0	0	104	1	0	0	0	0	0	0	1
H/TOT	329	51	18	25	1	0	0	424	4	1	0	0	0	0	0	5
09:00	84	11	8	2	1	0	0	106	2	0	0	0	0	0	0	2
09:15	54	12	3	5	0	0	0	74	1	0	0	0	0	0	0	1
09:30	45	8	5	2	0	0	0	60	1	0	0	0	0	0	0	1
09:45	47	12	6	4	0	0	0	69	0	0	0	0	0	0	0	0
H/TOT	230	43	22	13	1	0	0	309	4	0	0	0	0	0	0	4
P/TOT	980	202	59	53	5	1	0	1300	10	1	0	0	0	0	0	11

	C to D								C to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	59	17	2	3	0	0	0	81	1	0	0	0	0	0	0	1
15:15	71	18	4	4	0	0	0	97	0	0	0	0	0	0	0	0
15:30	65	24	5	3	0	0	0	97	3	1	0	0	0	0	0	4
15:45	53	16	6	2	0	0	0	77	0	0	0	0	0	0	0	0
H/TOT	248	75	17	12	0	0	0	352	4	1	0	0	0	0	0	5
16:00	71	26	4	1	0	0	0	102	0	0	0	0	0	0	0	0
16:15	86	14	4	3	0	0	0	107	2	0	0	0	0	0	0	2
16:30	82	19	4	2	0	0	0	107	0	0	0	0	0	0	0	0
16:45	74	16	1	2	0	0	0	93	1	0	0	0	0	0	0	1
H/TOT	313	75	13	8	0	0	0	409	3	0	0	0	0	0	0	3
17:00	114	10	4	3	0	0	0	131	2	0	0	0	0	0	0	2
17:15	74	14	6	2	1	0	0	97	1	1	0	0	0	0	0	2
17:30	73	7	4	4	0	0	0	88	1	0	0	0	0	0	0	1
17:45	59	11	2	3	1	1	0	77	0	0	0	0	0	0	0	0
H/TOT	320	42	16	12	2	1	0	393	4	1	0	0	0	0	0	5
P/TOT	881	192	46	32	2	1	0	1154	11	2	0	0	0	0	0	13

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	D to C								D to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	35	7	2	3	0	0	0	47	0	0	0	0	0	0	0	0
07:15	53	18	5	6	1	0	0	83	0	0	0	0	0	0	0	0
07:30	72	22	3	2	1	0	0	100	1	0	0	0	0	0	0	1
07:45	71	21	2	4	0	0	0	98	0	0	0	0	0	0	0	0
H/TOT	231	68	12	15	2	0	0	328	1	0	0	0	0	0	0	1
08:00	60	18	5	5	0	0	0	88	0	0	0	0	0	0	0	0
08:15	97	19	7	4	0	0	0	127	0	0	0	0	0	0	0	0
08:30	90	23	4	2	0	0	0	119	1	0	0	0	0	0	0	1
08:45	77	13	6	2	0	0	0	98	0	0	0	0	0	0	0	0
H/TOT	324	73	22	13	0	0	0	432	1	0	0	0	0	0	0	1
09:00	45	11	11	9	0	0	0	76	0	0	0	0	0	0	0	0
09:15	53	12	3	2	2	0	0	72	0	0	0	0	0	0	0	0
09:30	43	9	5	2	1	0	0	60	0	0	0	0	0	0	0	0
09:45	38	12	1	1	0	0	0	52	0	0	0	0	0	0	0	0
H/TOT	179	44	20	14	3	0	0	260	0	0	0	0	0	0	0	0
P/TOT	734	185	54	42	5	0	0	1020	2	0	0	0	0	0	0	2

	D to C								D to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	66	14	8	4	0	0	0	92	0	0	0	0	0	0	0	0
15:15	72	12	5	7	0	1	0	97	0	0	0	0	0	0	0	0
15:30	68	22	5	2	0	0	0	97	0	0	0	0	0	0	0	0
15:45	78	32	3	5	0	0	0	118	0	0	0	0	0	0	0	0
H/TOT	284	80	21	18	0	1	0	404	0	0	0	0	0	0	0	0
16:00	89	24	8	7	0	0	0	128	0	0	0	0	0	0	0	0
16:15	104	13	3	9	0	1	0	130	1	0	0	0	0	0	0	1
16:30	91	14	3	7	1	1	0	117	0	0	0	0	0	0	0	0
16:45	118	23	3	3	1	0	0	148	1	0	0	0	0	0	0	1
H/TOT	402	74	17	26	2	2	0	523	2	0	0	0	0	0	0	2
17:00	112	26	3	7	0	1	0	149	0	0	0	0	0	0	0	0
17:15	119	10	2	4	0	0	0	135	0	0	0	0	0	0	0	0
17:30	132	18	4	3	0	0	0	157	1	0	0	0	0	0	0	1
17:45	118	18	1	1	0	0	0	138	0	0	0	0	0	0	0	0
H/TOT	481	72	10	15	0	1	0	579	1	0	0	0	0	0	0	1
P/TOT	1167	226	48	59	2	4	0	1506	3	0	0	0	0	0	0	3

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	D to A								D to D							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	40	14	3	4	0	0	0	61	0	0	0	0	0	0	0	0
07:15	75	19	4	1	0	0	0	99	0	0	0	0	0	0	0	0
07:30	80	11	6	2	0	0	0	99	0	0	0	0	0	0	0	0
07:45	125	22	6	3	0	0	0	156	0	0	0	0	0	0	0	0
H/TOT	320	66	19	10	0	0	0	415	0	0	0	0	0	0	0	0
08:00	90	10	6	5	0	0	0	111	0	0	0	0	0	0	0	0
08:15	64	11	0	2	0	0	0	77	0	0	0	0	0	0	0	0
08:30	81	17	0	2	1	1	0	102	0	0	0	0	0	0	0	0
08:45	76	19	6	7	0	0	0	108	0	0	0	0	0	0	0	0
H/TOT	311	57	12	16	1	1	0	398	0	0	0	0	0	0	0	0
09:00	70	17	6	5	0	0	0	98	0	0	0	0	0	0	0	0
09:15	71	13	4	4	0	0	0	92	0	0	0	0	0	0	0	0
09:30	61	14	7	3	0	0	0	85	0	0	0	0	0	0	0	0
09:45	60	13	6	3	0	0	0	82	0	0	0	0	0	0	0	0
H/TOT	262	57	23	15	0	0	0	357	0	0	0	0	0	0	0	0
P/TOT	893	180	54	41	1	1	0	1170	0	0	0	0	0	0	0	0

	D to A								D to D							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	62	15	6	3	0	0	0	86	0	0	0	0	0	0	0	0
15:15	64	19	5	2	0	0	0	90	0	0	0	0	0	0	0	0
15:30	80	28	5	1	0	0	0	114	0	0	0	0	0	0	0	0
15:45	79	14	1	3	0	0	0	97	0	0	0	0	0	0	0	0
H/TOT	285	76	17	9	0	0	0	387	0	0	0	0	0	0	0	0
16:00	84	28	8	3	0	0	0	123	0	0	0	0	0	0	0	0
16:15	96	25	3	5	0	0	0	129	0	0	0	0	0	0	0	0
16:30	105	22	5	4	1	0	0	137	0	0	0	0	0	0	0	0
16:45	122	36	6	1	0	1	0	166	0	0	0	0	0	0	0	0
H/TOT	407	111	22	13	1	1	0	555	0	0	0	0	0	0	0	0
17:00	101	17	6	3	0	0	0	127	0	0	0	0	0	0	0	0
17:15	130	21	2	0	0	0	0	153	0	0	0	0	0	0	0	0
17:30	124	21	0	4	0	0	0	149	0	0	0	0	0	0	0	0
17:45	108	13	2	3	0	0	0	126	0	0	0	0	0	0	0	0
H/TOT	463	72	10	10	0	0	0	555	0	0	0	0	0	0	0	0
P/TOT	1155	259	49	32	1	1	0	1497	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	133	24	5	10	4	0	0	176	191	65	10	6	0	1	0	273
07:15	173	39	10	3	0	1	0	226	193	70	9	5	2	1	0	280
07:30	197	30	17	9	2	1	0	256	216	54	8	5	1	0	0	284
07:45	246	36	13	5	0	0	1	301	190	49	4	6	1	1	0	251
H/TOT	749	129	45	27	6	2	1	959	790	238	31	22	4	3	0	1088
08:00	225	29	13	10	2	0	0	279	233	51	7	4	4	1	0	300
08:15	163	30	6	2	1	0	0	202	213	45	11	8	0	1	0	278
08:30	220	31	9	6	3	1	0	270	164	25	9	2	1	2	0	203
08:45	214	31	13	15	3	1	0	277	153	26	15	5	2	0	0	201
H/TOT	822	121	41	33	9	2	0	1028	763	147	42	19	7	4	0	982
09:00	183	32	12	12	0	0	1	240	203	39	14	11	2	1	0	270
09:15	163	27	9	5	1	0	0	205	169	30	20	9	0	1	0	229
09:30	160	32	14	5	1	0	0	212	133	25	14	4	1	1	0	178
09:45	169	29	9	7	1	1	0	216	119	31	10	10	0	1	1	172
H/TOT	675	120	44	29	3	1	1	873	624	125	58	34	3	4	1	849
P/TOT	2246	370	130	89	18	5	2	2860	2177	510	131	75	14	11	1	2919

	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	172	54	12	3	2	2	0	245	185	44	16	4	0	0	0	249
15:15	186	46	10	4	0	1	0	247	174	34	10	9	1	0	0	228
15:30	221	58	11	1	5	0	0	296	212	40	6	6	2	0	1	267
15:45	213	50	4	4	1	0	0	272	180	35	0	3	1	0	0	219
H/TOT	792	208	37	12	8	3	0	1060	751	153	32	22	4	0	1	963
16:00	229	61	14	6	1	0	0	311	201	21	8	2	3	0	0	235
16:15	222	55	12	5	2	0	0	296	225	28	5	4	2	1	0	265
16:30	272	56	10	4	2	0	1	345	232	41	7	1	1	1	2	285
16:45	304	62	13	4	1	2	0	386	247	21	4	2	2	1	0	277
H/TOT	1027	234	49	19	6	2	1	1338	905	111	24	9	8	3	2	1062
17:00	308	44	10	6	0	0	0	368	237	22	2	5	2	0	0	268
17:15	264	48	4	2	1	0	1	320	260	15	6	4	2	0	1	288
17:30	277	38	0	5	1	1	1	323	240	25	2	4	1	2	0	274
17:45	292	35	2	5	1	1	0	336	209	16	5	3	1	2	0	236
H/TOT	1141	165	16	18	3	2	2	1347	946	78	15	16	6	4	1	1066
P/TOT	2960	607	102	49	17	7	3	3745	2602	342	71	47	18	7	4	3091

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	TO ARM B								FROM ARM B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	156	47	10	5	0	1	0	219	67	14	5	6	0	0	0	92
07:15	145	41	5	2	0	0	0	193	76	24	7	3	0	0	0	110
07:30	191	42	2	4	1	1	0	241	87	25	7	7	0	0	0	126
07:45	159	39	3	1	0	0	0	202	125	27	13	3	0	0	0	168
H/TOT	651	169	20	12	1	2	0	855	355	90	32	19	0	0	0	496
08:00	148	27	4	1	0	0	0	180	97	12	12	5	0	0	0	126
08:15	119	27	4	2	0	1	0	153	93	35	6	1	0	0	0	135
08:30	102	17	6	4	0	2	0	131	111	19	13	5	0	0	0	148
08:45	72	21	6	4	0	0	0	103	102	15	6	5	0	1	0	129
H/TOT	441	92	20	11	0	3	0	567	403	81	37	16	0	1	0	538
09:00	107	25	11	4	0	0	0	147	93	20	7	5	0	0	0	125
09:15	78	11	14	4	0	0	0	107	67	9	3	6	0	0	0	85
09:30	63	14	5	6	0	1	0	89	66	12	6	0	0	0	0	84
09:45	46	15	5	6	0	1	0	73	81	16	3	6	0	0	0	106
H/TOT	294	65	35	20	0	2	0	416	307	57	19	17	0	0	0	400
P/TOT	1386	326	75	43	1	7	0	1838	1065	228	88	52	0	1	0	1434

	TO ARM B								FROM ARM B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	73	22	5	1	0	0	0	101	83	26	4	2	0	1	0	116
15:15	73	13	10	1	0	0	0	97	91	26	8	4	0	0	0	129
15:30	78	20	6	8	1	0	0	113	118	36	9	1	0	0	0	164
15:45	75	13	0	3	0	0	0	91	108	40	8	5	0	0	0	161
H/TOT	299	68	21	13	1	0	0	402	400	128	29	12	0	1	0	570
16:00	73	25	3	1	0	0	0	102	117	45	5	4	0	0	0	171
16:15	92	16	4	0	1	0	0	113	134	34	6	2	0	0	0	176
16:30	109	18	4	0	0	0	2	133	164	30	4	2	1	1	1	203
16:45	80	8	5	3	0	0	0	96	200	36	9	5	0	0	0	250
H/TOT	354	67	16	4	1	0	2	444	615	145	24	13	1	1	1	800
17:00	139	12	1	3	1	0	0	156	182	43	6	4	0	0	0	235
17:15	108	10	5	4	0	0	0	127	187	29	5	4	1	0	0	226
17:30	85	15	3	2	0	0	0	105	208	25	1	1	0	2	0	237
17:45	78	6	2	0	0	1	0	87	183	21	2	4	1	0	0	211
H/TOT	410	43	11	9	1	1	0	475	760	118	14	13	2	2	0	909
P/TOT	1063	178	48	26	3	1	2	1321	1775	391	67	38	3	4	1	2279

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	86	19	6	4	0	0	0	115	208	49	6	8	6	0	0	277
07:15	107	35	9	9	3	1	0	164	242	37	12	7	1	2	0	301
07:30	126	41	6	3	2	0	0	178	280	57	12	4	3	2	0	358
07:45	152	42	10	6	1	1	0	212	256	49	6	6	0	0	1	318
H/TOT	471	137	31	22	6	2	0	669	986	192	36	25	10	4	1	1254
08:00	148	28	13	7	4	1	0	201	237	36	10	8	2	0	0	293
08:15	200	46	13	9	0	0	0	268	184	32	9	2	1	1	0	229
08:30	173	36	12	3	1	0	0	225	201	21	8	10	2	0	0	242
08:45	176	26	14	5	2	1	0	224	191	26	9	16	4	1	0	247
H/TOT	697	136	52	24	7	2	0	918	813	115	36	36	9	2	0	1011
09:00	145	30	14	11	2	0	0	202	195	28	14	9	1	0	1	248
09:15	129	28	8	7	2	0	0	174	131	25	12	6	1	0	0	175
09:30	123	25	11	2	2	0	0	163	137	25	11	7	1	0	0	181
09:45	118	32	6	9	0	0	1	166	125	25	10	9	1	1	0	171
H/TOT	515	115	39	29	6	0	1	705	588	103	47	31	4	1	1	775
P/TOT	1683	388	122	75	19	4	1	2292	2387	410	119	92	23	7	2	3040

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	191	25	12	8	0	0	0	236	163	41	5	4	2	1	0	216
15:15	180	28	11	12	1	1	0	233	169	32	9	5	0	1	0	216
15:30	196	33	12	5	1	0	1	248	170	35	11	9	5	0	0	230
15:45	192	52	8	9	1	0	0	262	162	32	6	4	1	0	0	205
H/TOT	759	138	43	34	3	1	1	979	664	140	31	22	8	2	0	867
16:00	219	44	11	10	3	0	0	287	194	48	8	4	1	0	0	255
16:15	241	31	5	11	1	2	0	291	184	32	8	3	2	0	0	229
16:30	244	32	7	10	3	3	1	300	206	41	6	2	1	0	1	257
16:45	296	48	8	5	3	1	0	361	181	34	6	3	1	1	0	226
H/TOT	1000	155	31	36	10	6	1	1239	765	155	28	12	5	1	1	967
17:00	256	54	6	10	2	1	0	329	292	22	5	6	1	0	0	326
17:15	301	29	5	7	2	0	1	345	169	34	7	5	2	0	1	218
17:30	341	34	5	4	1	2	0	387	172	17	5	4	1	0	1	200
17:45	282	38	6	3	2	1	0	332	174	27	3	3	2	2	0	211
H/TOT	1180	155	22	24	7	4	1	1393	807	100	20	18	6	2	2	955
P/TOT	2939	448	96	94	20	11	3	3611	2236	395	79	52	19	5	3	2789

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	TO ARM D								FROM ARM D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	166	59	5	8	2	0	0	240	75	21	5	7	0	0	0	108
07:15	214	53	13	8	1	1	0	290	128	37	9	7	1	0	0	182
07:30	222	56	11	4	0	0	0	293	153	33	9	4	1	0	0	200
07:45	210	51	5	10	0	0	0	276	196	43	8	7	0	0	0	254
H/TOT	812	219	34	30	3	1	0	1099	552	134	31	25	2	0	0	744
08:00	196	43	10	9	0	0	0	258	150	28	11	10	0	0	0	199
08:15	169	39	10	4	0	1	0	223	161	30	7	6	0	0	0	204
08:30	153	21	7	8	0	0	0	189	172	40	4	4	1	1	0	222
08:45	137	21	9	11	1	0	0	179	153	32	12	9	0	0	0	206
H/TOT	655	124	36	32	1	1	0	849	636	130	34	29	1	1	0	831
09:00	171	28	15	12	1	1	0	228	115	28	17	14	0	0	0	174
09:15	121	23	11	11	0	1	0	167	124	25	7	6	2	0	0	164
09:30	94	14	13	3	0	0	0	124	104	23	12	5	1	0	0	145
09:45	90	21	10	7	0	0	0	128	98	25	7	4	0	0	0	134
H/TOT	476	86	49	33	1	2	0	647	441	101	43	29	3	0	0	617
P/TOT	1943	429	119	95	5	4	0	2595	1629	365	108	83	6	1	0	2192

	TO ARM D								FROM ARM D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
15:00	123	39	10	5	0	0	0	177	128	29	14	7	0	0	0	178
15:15	131	36	6	10	0	0	0	183	136	31	10	9	0	1	0	187
15:30	153	50	7	5	0	0	0	215	148	50	10	3	0	0	0	211
15:45	127	38	6	4	0	0	0	175	157	46	4	8	0	0	0	215
H/TOT	534	163	29	24	0	0	0	750	569	156	38	27	0	1	0	791
16:00	164	36	9	3	0	0	0	212	173	52	16	10	0	0	0	251
16:15	189	30	4	7	0	0	0	230	201	38	6	14	0	1	0	260
16:30	173	42	4	2	0	0	0	221	196	36	8	11	2	1	0	254
16:45	189	32	2	2	0	0	0	225	241	59	9	4	1	1	0	315
H/TOT	715	140	19	14	0	0	0	888	811	185	39	39	3	3	0	1080
17:00	221	20	5	6	0	0	0	252	213	43	9	10	0	1	0	276
17:15	192	22	8	4	2	0	0	228	249	31	4	4	0	0	0	288
17:30	174	19	4	5	0	1	0	203	257	39	4	7	0	0	0	307
17:45	140	16	3	6	1	1	0	167	226	31	3	4	0	0	0	264
H/TOT	727	77	20	21	3	2	0	850	945	144	20	25	0	1	0	1135
P/TOT	1976	380	68	59	3	2	0	2488	2325	485	97	91	3	5	0	3006

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1

DATE: 22/09/2022

LOCATION: Dod Worth Roundabout

DAY: Thursday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	541	149	26	27	6	1	0	750
07:15	639	168	37	22	4	3	0	873
07:30	736	169	36	20	5	2	0	968
07:45	767	168	31	22	1	1	1	991
H/TOT	2683	654	130	91	16	7	1	3582
08:00	717	127	40	27	6	1	0	918
08:15	651	142	33	17	1	2	0	846
08:30	648	105	34	21	4	3	0	815
08:45	599	99	42	35	6	2	0	783
H/TOT	2615	473	149	100	17	8	0	3362
09:00	606	115	52	39	3	1	1	817
09:15	491	89	42	27	3	1	0	653
09:30	440	85	43	16	3	1	0	588
09:45	423	97	30	29	1	2	1	583
H/TOT	1960	386	167	111	10	5	2	2641
P/TOT	7258	1513	446	302	43	20	3	9585

PEAK HOUR CALCULATION	TOT
07:00 to 08:00	3582
07:15 to 08:15	**3750**
07:30 to 08:30	3723
07:45 to 08:45	3570
08:00 to 09:00	3362
08:15 to 09:15	3261
08:30 to 09:30	3068
08:45 to 09:45	2841
09:00 to 10:00	2641
PEAK VALUE	**3750**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
15:00	559	140	39	17	2	2	0	759
15:15	570	123	37	27	1	2	0	760
15:30	648	161	36	19	7	0	1	872
15:45	607	153	18	20	2	0	0	800
H/TOT	2384	577	130	83	12	4	1	3191
16:00	685	166	37	20	4	0	0	912
16:15	744	132	25	23	4	2	0	930
16:30	798	148	25	16	5	3	4	999
16:45	869	150	28	14	4	3	0	1068
H/TOT	3096	596	115	73	17	8	4	3909
17:00	924	130	22	25	3	1	0	1105
17:15	865	109	22	17	5	0	2	1020
17:30	877	106	12	16	2	4	1	1018
17:45	792	95	13	14	4	4	0	922
H/TOT	3458	440	69	72	14	9	3	4065
P/TOT	8938	1613	314	228	43	21	8	11165

PEAK HOUR CALCULATION	TOT
15:00 to 16:00	3191
15:15 to 16:15	3344
15:30 to 16:30	3514
15:45 to 16:45	3641
16:00 to 17:00	3909
16:15 to 17:15	4102
16:30 to 17:30	4192
16:45 to 17:45	**4211**
18:00 to 19:00	4065
PEAK VALUE	**4211**

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

Note: Arm letters have been amended here to match LinSig arm order

	A to B							A to C						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	84	33	2	5	0	0	0	124	26	5	0	0	0	0	0	31
07:15	101	31	7	3	0	0	0	142	25	9	1	2	2	1	0	40
07:30	106	24	6	2	0	0	0	138	25	7	1	0	1	0	0	34
07:45	99	23	0	5	0	0	0	127	24	7	2	0	1	1	0	35
08:00	111	29	3	3	0	0	0	146	53	6	1	0	4	1	0	65
08:15	83	21	6	2	0	1	0	113	59	9	3	4	0	0	0	75
08:30	74	13	4	0	0	0	0	91	46	7	2	0	1	0	0	56
08:45	58	10	5	2	0	0	0	75	66	6	7	0	2	0	0	81
09:00	86	16	7	10	0	1	0	120	60	8	1	0	2	0	0	71
09:15	67	11	8	6	0	1	0	93	54	13	4	0	0	0	0	71
09:30	49	6	8	1	0	0	0	64	51	10	4	0	1	0	0	66
09:45	43	9	4	3	0	0	0	59	48	14	4	4	0	0	1	71
15:00	64	22	8	2	0	0	0	96	77	6	4	2	0	0	0	89
15:15	60	18	2	6	0	0	0	86	72	7	2	2	1	0	0	84
15:30	88	26	2	2	0	0	0	118	75	2	2	2	1	0	1	83
15:45	74	22	0	2	0	0	0	98	65	6	0	0	1	0	0	72
16:00	93	10	5	2	0	0	0	110	76	2	2	0	3	0	0	83
16:15	103	16	0	4	0	0	0	123	73	5	1	0	1	1	0	81
16:30	91	23	0	0	0	0	0	114	72	9	3	1	1	1	0	87
16:45	114	16	1	0	0	0	0	131	85	5	2	0	2	1	0	95
17:00	107	9	1	3	0	0	0	120	60	7	0	0	2	0	0	69
17:15	117	8	2	2	1	0	0	130	77	5	0	0	1	0	1	84
17:30	99	11	0	1	0	1	0	112	96	4	0	1	1	1	0	103
17:45	81	5	1	3	0	0	0	90	84	10	3	0	1	1	0	99

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	A to D							A to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	81	27	8	1	0	1	0	118	0	0	0	0	0	0	0	0
07:15	67	30	1	0	0	0	0	98	0	0	0	0	0	0	0	0
07:30	85	23	1	3	0	0	0	112	0	0	0	0	0	0	0	0
07:45	67	19	2	1	0	0	0	89	0	0	0	0	0	0	0	0
08:00	69	16	3	1	0	0	0	89	0	0	0	0	0	0	0	0
08:15	71	15	2	2	0	0	0	90	0	0	0	0	0	0	0	0
08:30	44	5	3	2	0	2	0	56	0	0	0	0	0	0	0	0
08:45	29	10	3	3	0	0	0	45	0	0	0	0	0	0	0	0
09:00	57	15	6	1	0	0	0	79	0	0	0	0	0	0	0	0
09:15	48	6	8	3	0	0	0	65	0	0	0	0	0	0	0	0
09:30	33	9	2	3	0	1	0	48	0	0	0	0	0	0	0	0
09:45	28	8	2	3	0	1	0	42	0	0	0	0	0	0	0	0
15:00	44	16	4	0	0	0	0	64	0	0	0	0	0	0	0	0
15:15	42	9	6	1	0	0	0	58	0	0	0	0	0	0	0	0
15:30	49	12	2	2	1	0	0	66	0	0	0	0	0	0	0	0
15:45	41	7	0	1	0	0	0	49	0	0	0	0	0	0	0	0
16:00	32	9	1	0	0	0	0	42	0	0	0	0	0	0	0	0
16:15	49	7	4	0	1	0	0	61	0	0	0	0	0	0	0	0
16:30	69	9	4	0	0	0	2	84	0	0	0	0	0	0	0	0
16:45	48	0	1	2	0	0	0	51	0	0	0	0	0	0	0	0
17:00	70	6	1	2	0	0	0	79	0	0	0	0	0	0	0	0
17:15	66	2	4	2	0	0	0	74	0	0	0	0	0	0	0	0
17:30	45	10	2	2	0	0	0	59	0	0	0	0	0	0	0	0
17:45	44	1	1	0	0	1	0	47	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	D to A							D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	42	7	1	5	0	0	0	55	0	0	0	0	0	0	0	0
07:15	47	16	4	2	0	0	0	69	0	0	0	0	0	0	0	0
07:30	59	13	5	6	0	0	0	83	0	0	0	0	0	0	0	0
07:45	68	13	7	1	0	0	0	89	1	0	0	0	0	0	0	1
08:00	64	9	5	3	0	0	0	81	0	0	0	0	0	0	0	0
08:15	49	17	3	0	0	0	0	69	0	0	0	0	0	0	0	0
08:30	75	13	7	4	0	0	0	99	0	0	0	0	0	0	0	0
08:45	70	8	5	2	0	0	0	85	0	0	0	0	0	0	0	0
09:00	54	8	5	3	0	0	0	70	1	1	0	0	0	0	0	2
09:15	46	6	2	1	0	0	0	55	0	0	0	0	0	0	0	0
09:30	38	6	4	0	0	0	0	48	0	0	0	0	0	0	0	0
09:45	49	10	2	2	0	0	0	63	0	0	0	0	0	0	0	0
15:00	36	21	4	0	0	1	0	62	0	0	0	0	0	0	0	0
15:15	55	17	4	1	0	0	0	77	0	0	0	0	0	0	0	0
15:30	68	28	4	0	0	0	0	100	0	0	0	0	0	0	0	0
15:45	59	26	3	1	0	0	0	89	0	0	0	0	0	0	0	0
16:00	63	27	4	1	0	0	0	95	0	0	0	0	0	0	0	0
16:15	72	21	5	0	0	0	0	98	0	0	0	0	0	0	0	0
16:30	83	21	3	0	0	0	0	107	0	0	0	0	0	0	0	0
16:45	107	16	6	3	0	0	0	132	1	0	0	0	0	0	0	1
17:00	100	21	3	1	0	0	0	125	0	1	0	0	0	0	0	1
17:15	82	16	2	1	0	0	0	101	1	0	0	0	0	0	0	1
17:30	94	12	0	1	0	1	0	108	2	1	0	0	0	0	0	3
17:45	103	11	0	2	0	0	0	116	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	D to C							D to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	25	7	4	1	0	0	0	37	0	0	0	0	0	0	0	0
07:15	29	8	3	1	0	0	0	41	0	0	0	0	0	0	0	0
07:30	28	12	2	1	0	0	0	43	0	0	0	0	0	0	0	0
07:45	56	14	6	2	0	0	0	78	0	0	0	0	0	0	0	0
08:00	33	3	7	2	0	0	0	45	0	0	0	0	0	0	0	0
08:15	44	18	3	1	0	0	0	66	0	0	0	0	0	0	0	0
08:30	36	6	6	1	0	0	0	49	0	0	0	0	0	0	0	0
08:45	32	7	1	3	0	1	0	44	0	0	0	0	0	0	0	0
09:00	38	11	2	2	0	0	0	53	0	0	0	0	0	0	0	0
09:15	21	3	1	5	0	0	0	30	0	0	0	0	0	0	0	0
09:30	28	6	2	0	0	0	0	36	0	0	0	0	0	0	0	0
09:45	32	6	1	4	0	0	0	43	0	0	0	0	0	0	0	0
15:00	47	5	0	2	0	0	0	54	0	0	0	0	0	0	0	0
15:15	36	9	4	3	0	0	0	52	0	0	0	0	0	0	0	0
15:30	50	8	5	1	0	0	0	64	0	0	0	0	0	0	0	0
15:45	49	14	5	4	0	0	0	72	0	0	0	0	0	0	0	0
16:00	54	18	1	3	0	0	0	76	0	0	0	0	0	0	0	0
16:15	62	13	1	2	0	0	0	78	0	0	0	0	0	0	0	0
16:30	81	9	1	2	1	1	1	96	0	0	0	0	0	0	0	0
16:45	92	20	3	2	0	0	0	117	0	0	0	0	0	0	0	0
17:00	82	21	3	3	0	0	0	109	0	0	0	0	0	0	0	0
17:15	104	13	3	3	1	0	0	124	0	0	0	0	0	0	0	0
17:30	112	12	1	0	0	1	0	126	0	0	0	0	0	0	0	0
17:45	80	10	2	2	1	0	0	95	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	C to D							C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	75	20	2	4	0	0	0	101	51	3	1	1	4	0	0	60
07:15	78	11	4	2	0	0	0	95	51	4	2	0	0	1	0	58
07:30	105	19	1	1	1	1	0	128	58	6	6	1	2	1	0	74
07:45	92	20	1	0	0	0	0	113	53	1	0	1	0	0	1	56
08:00	79	11	1	0	0	0	0	91	71	10	2	2	2	0	0	87
08:15	48	12	2	0	0	1	0	63	50	2	3	0	1	0	0	56
08:30	57	12	3	2	0	0	0	74	64	1	2	0	2	0	0	69
08:45	43	11	3	1	0	0	0	58	68	4	2	6	3	1	0	84
09:00	50	10	5	3	0	0	0	68	59	7	1	4	0	0	1	72
09:15	30	5	6	1	0	0	0	42	46	8	3	0	1	0	0	58
09:30	30	5	3	3	0	0	0	41	61	12	3	2	1	0	0	79
09:45	18	7	3	3	0	0	0	31	60	6	1	2	1	1	0	71
15:00	29	6	1	1	0	0	0	37	74	18	2	0	2	1	0	97
15:15	31	4	4	0	0	0	0	39	67	10	1	1	0	1	0	80
15:30	29	8	4	6	0	0	0	47	73	2	2	0	5	0	0	82
15:45	34	6	0	2	0	0	0	42	75	10	0	0	1	0	0	86
16:00	41	16	2	1	0	0	0	60	82	6	2	2	1	0	0	93
16:15	42	9	0	0	0	0	0	51	54	9	4	0	2	0	0	69
16:30	40	9	0	0	0	0	0	49	84	13	2	0	1	0	1	101
16:45	31	8	4	1	0	0	0	44	75	10	1	0	1	1	0	88
17:00	69	6	0	1	1	0	0	77	107	6	1	2	0	0	0	116
17:15	42	8	1	2	0	0	0	53	52	11	0	1	1	0	1	66
17:30	39	5	1	0	0	0	0	45	59	5	0	0	1	0	1	66
17:45	34	5	1	0	0	0	0	40	81	11	0	0	1	1	0	94

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	C to B							C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	82	26	3	3	2	0	0	116	0	0	0	0	0	0	0	0
07:15	113	22	6	5	1	1	0	148	0	0	0	0	0	0	0	0
07:30	116	32	5	2	0	0	0	155	1	0	0	0	0	0	0	1
07:45	110	28	5	5	0	0	0	148	1	0	0	0	0	0	0	1
08:00	85	14	7	6	0	0	0	112	2	1	0	0	0	0	0	3
08:15	86	18	4	2	0	0	0	110	0	0	0	0	0	0	0	0
08:30	79	8	3	8	0	0	0	98	1	0	0	0	0	0	0	1
08:45	79	11	4	9	1	0	0	104	1	0	0	0	0	0	0	1
09:00	84	11	8	2	1	0	0	106	2	0	0	0	0	0	0	2
09:15	54	12	3	5	0	0	0	74	1	0	0	0	0	0	0	1
09:30	45	8	5	2	0	0	0	60	1	0	0	0	0	0	0	1
09:45	47	12	6	4	0	0	0	69	0	0	0	0	0	0	0	0
15:00	59	17	2	3	0	0	0	81	1	0	0	0	0	0	0	1
15:15	71	18	4	4	0	0	0	97	0	0	0	0	0	0	0	0
15:30	65	24	5	3	0	0	0	97	3	1	0	0	0	0	0	4
15:45	53	16	6	2	0	0	0	77	0	0	0	0	0	0	0	0
16:00	71	26	4	1	0	0	0	102	0	0	0	0	0	0	0	0
16:15	86	14	4	3	0	0	0	107	2	0	0	0	0	0	0	2
16:30	82	19	4	2	0	0	0	107	0	0	0	0	0	0	0	0
16:45	74	16	1	2	0	0	0	93	1	0	0	0	0	0	0	1
17:00	114	10	4	3	0	0	0	131	2	0	0	0	0	0	0	2
17:15	74	14	6	2	1	0	0	97	1	1	0	0	0	0	0	2
17:30	73	7	4	4	0	0	0	88	1	0	0	0	0	0	0	1
17:45	59	11	2	3	1	1	0	77	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	B to C							B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	35	7	2	3	0	0	0	47	0	0	0	0	0	0	0	0
07:15	53	18	5	6	1	0	0	83	0	0	0	0	0	0	0	0
07:30	72	22	3	2	1	0	0	100	1	0	0	0	0	0	0	1
07:45	71	21	2	4	0	0	0	98	0	0	0	0	0	0	0	0
08:00	60	18	5	5	0	0	0	88	0	0	0	0	0	0	0	0
08:15	97	19	7	4	0	0	0	127	0	0	0	0	0	0	0	0
08:30	90	23	4	2	0	0	0	119	1	0	0	0	0	0	0	1
08:45	77	13	6	2	0	0	0	98	0	0	0	0	0	0	0	0
09:00	45	11	11	9	0	0	0	76	0	0	0	0	0	0	0	0
09:15	53	12	3	2	2	0	0	72	0	0	0	0	0	0	0	0
09:30	43	9	5	2	1	0	0	60	0	0	0	0	0	0	0	0
09:45	38	12	1	1	0	0	0	52	0	0	0	0	0	0	0	0
15:00	66	14	8	4	0	0	0	92	0	0	0	0	0	0	0	0
15:15	72	12	5	7	0	1	0	97	0	0	0	0	0	0	0	0
15:30	68	22	5	2	0	0	0	97	0	0	0	0	0	0	0	0
15:45	78	32	3	5	0	0	0	118	0	0	0	0	0	0	0	0
16:00	89	24	8	7	0	0	0	128	0	0	0	0	0	0	0	0
16:15	104	13	3	9	0	1	0	130	1	0	0	0	0	0	0	1
16:30	91	14	3	7	1	1	0	117	0	0	0	0	0	0	0	0
16:45	118	23	3	3	1	0	0	148	1	0	0	0	0	0	0	1
17:00	112	26	3	7	0	1	0	149	0	0	0	0	0	0	0	0
17:15	119	10	2	4	0	0	0	135	0	0	0	0	0	0	0	0
17:30	132	18	4	3	0	0	0	157	1	0	0	0	0	0	0	1
17:45	118	18	1	1	0	0	0	138	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	B to A							B to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	40	14	3	4	0	0	0	61	0	0	0	0	0	0	0	0
07:15	75	19	4	1	0	0	0	99	0	0	0	0	0	0	0	0
07:30	80	11	6	2	0	0	0	99	0	0	0	0	0	0	0	0
07:45	125	22	6	3	0	0	0	156	0	0	0	0	0	0	0	0
08:00	90	10	6	5	0	0	0	111	0	0	0	0	0	0	0	0
08:15	64	11	0	2	0	0	0	77	0	0	0	0	0	0	0	0
08:30	81	17	0	2	1	1	0	102	0	0	0	0	0	0	0	0
08:45	76	19	6	7	0	0	0	108	0	0	0	0	0	0	0	0
09:00	70	17	6	5	0	0	0	98	0	0	0	0	0	0	0	0
09:15	71	13	4	4	0	0	0	92	0	0	0	0	0	0	0	0
09:30	61	14	7	3	0	0	0	85	0	0	0	0	0	0	0	0
09:45	60	13	6	3	0	0	0	82	0	0	0	0	0	0	0	0
15:00	62	15	6	3	0	0	0	86	0	0	0	0	0	0	0	0
15:15	64	19	5	2	0	0	0	90	0	0	0	0	0	0	0	0
15:30	80	28	5	1	0	0	0	114	0	0	0	0	0	0	0	0
15:45	79	14	1	3	0	0	0	97	0	0	0	0	0	0	0	0
16:00	84	28	8	3	0	0	0	123	0	0	0	0	0	0	0	0
16:15	96	25	3	5	0	0	0	129	0	0	0	0	0	0	0	0
16:30	105	22	5	4	1	0	0	137	0	0	0	0	0	0	0	0
16:45	122	36	6	1	0	1	0	166	0	0	0	0	0	0	0	0
17:00	101	17	6	3	0	0	0	127	0	0	0	0	0	0	0	0
17:15	130	21	2	0	0	0	0	153	0	0	0	0	0	0	0	0
17:30	124	21	0	4	0	0	0	149	0	0	0	0	0	0	0	0
17:45	108	13	2	3	0	0	0	126	0	0	0	0	0	0	0	0

TIME START	15 MIN	1 HOUR
07:00	750	3582
07:15	873	**3750**
07:30	968	3723
07:45	991	3570
08:00	918	3362
08:15	846	3261
08:30	815	
08:45	783	
09:00	817	
	PEAK VALUE	**3750**

TIME START	15 MIN	1 HOUR
15:00	759	3191
15:15	760	3344
15:30	872	3514
15:45	800	3641
16:00	912	3909
16:15	930	4102
16:30	999	4192
16:45	1068	**4211**
17:00	1105	4065
17:15	1020	
17:30	1018	
17:45	922	
	PEAK VALUE	**4211**

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

Note: Arm letters have been amended here to match LinSig arm order

	A to B							A to C						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	84	33	3	11.5	0	0	0	131.5	26	5	0	0	0	0	0	31
07:15	101	31	10.5	6.9	0	0	0	149.4	25	9	1.5	4.6	4	0.4	0	44.5
07:30	106	24	9	4.6	0	0	0	143.6	25	7	1.5	0	2	0	0	35.5
07:45	99	23	0	11.5	0	0	0	133.5	24	7	3	0	2	0.4	0	36.4
08:00	111	29	4.5	6.9	0	0	0	151.4	53	6	1.5	0	8	0.4	0	68.9
08:15	83	21	9	4.6	0	0.4	0	118	59	9	4.5	9.2	0	0	0	81.7
08:30	74	13	6	0	0	0	0	93	46	7	3	0	2	0	0	58
08:45	58	10	7.5	4.6	0	0	0	80.1	66	6	10.5	0	4	0	0	86.5
09:00	86	16	10.5	23	0	0.4	0	135.9	60	8	1.5	0	4	0	0	73.5
09:15	67	11	12	13.8	0	0.4	0	104.2	54	13	6	0	0	0	0	73
09:30	49	6	12	2.3	0	0	0	69.3	51	10	6	0	2	0	0	69
09:45	43	9	6	6.9	0	0	0	64.9	48	14	6	9.2	0	0	0.2	77.4
15:00	64	22	12	4.6	0	0	0	102.6	77	6	6	4.6	0	0	0	93.6
15:15	60	18	3	13.8	0	0	0	94.8	72	7	3	4.6	2	0	0	88.6
15:30	88	26	3	4.6	0	0	0	121.6	75	2	3	4.6	2	0	0.2	86.8
15:45	74	22	0	4.6	0	0	0	100.6	65	6	0	0	2	0	0	73
16:00	93	10	7.5	4.6	0	0	0	115.1	76	2	3	0	6	0	0	87
16:15	103	16	0	9.2	0	0	0	128.2	73	5	1.5	0	2	0.4	0	81.9
16:30	91	23	0	0	0	0	0	114	72	9	4.5	2.3	2	0.4	0	90.2
16:45	114	16	1.5	0	0	0	0	131.5	85	5	3	0	4	0.4	0	97.4
17:00	107	9	1.5	6.9	0	0	0	124.4	60	7	0	0	4	0	0	71
17:15	117	8	3	4.6	2	0	0	134.6	77	5	0	0	2	0	0.2	84.2
17:30	99	11	0	2.3	0	0.4	0	112.7	96	4	0	2.3	2	0.4	0	104.7
17:45	81	5	1.5	6.9	0	0	0	94.4	84	10	4.5	0	2	0.4	0	100.9

PCU	1	1	1.5	2.3	2	0.4	0.2

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	A to D							A to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	81	27	12	2.3	0	0.4	0	122.7	0	0	0	0	0	0	0	0
07:15	67	30	1.5	0	0	0	0	98.5	0	0	0	0	0	0	0	0
07:30	85	23	1.5	6.9	0	0	0	116.4	0	0	0	0	0	0	0	0
07:45	67	19	3	2.3	0	0	0	91.3	0	0	0	0	0	0	0	0
08:00	69	16	4.5	2.3	0	0	0	91.8	0	0	0	0	0	0	0	0
08:15	71	15	3	4.6	0	0	0	93.6	0	0	0	0	0	0	0	0
08:30	44	5	4.5	4.6	0	0.8	0	58.9	0	0	0	0	0	0	0	0
08:45	29	10	4.5	6.9	0	0	0	50.4	0	0	0	0	0	0	0	0
09:00	57	15	9	2.3	0	0	0	83.3	0	0	0	0	0	0	0	0
09:15	48	6	12	6.9	0	0	0	72.9	0	0	0	0	0	0	0	0
09:30	33	9	3	6.9	0	0.4	0	52.3	0	0	0	0	0	0	0	0
09:45	28	8	3	6.9	0	0.4	0	46.3	0	0	0	0	0	0	0	0
15:00	44	16	6	0	0	0	0	66	0	0	0	0	0	0	0	0
15:15	42	9	9	2.3	0	0	0	62.3	0	0	0	0	0	0	0	0
15:30	49	12	3	4.6	2	0	0	70.6	0	0	0	0	0	0	0	0
15:45	41	7	0	2.3	0	0	0	50.3	0	0	0	0	0	0	0	0
16:00	32	9	1.5	0	0	0	0	42.5	0	0	0	0	0	0	0	0
16:15	49	7	6	0	2	0	0	64	0	0	0	0	0	0	0	0
16:30	69	9	6	0	0	0	0.4	84.4	0	0	0	0	0	0	0	0
16:45	48	0	1.5	4.6	0	0	0	54.1	0	0	0	0	0	0	0	0
17:00	70	6	1.5	4.6	0	0	0	82.1	0	0	0	0	0	0	0	0
17:15	66	2	6	4.6	0	0	0	78.6	0	0	0	0	0	0	0	0
17:30	45	10	3	4.6	0	0	0	62.6	0	0	0	0	0	0	0	0
17:45	44	1	1.5	0	0	0.4	0	46.9	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	D to A							D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	42	7	1.5	11.5	0	0	0	62	0	0	0	0	0	0	0	0
07:15	47	16	6	4.6	0	0	0	73.6	0	0	0	0	0	0	0	0
07:30	59	13	7.5	13.8	0	0	0	93.3	0	0	0	0	0	0	0	0
07:45	68	13	10.5	2.3	0	0	0	93.8	1	0	0	0	0	0	0	1
08:00	64	9	7.5	6.9	0	0	0	87.4	0	0	0	0	0	0	0	0
08:15	49	17	4.5	0	0	0	0	70.5	0	0	0	0	0	0	0	0
08:30	75	13	10.5	9.2	0	0	0	107.7	0	0	0	0	0	0	0	0
08:45	70	8	7.5	4.6	0	0	0	90.1	0	0	0	0	0	0	0	0
09:00	54	8	7.5	6.9	0	0	0	76.4	1	1	0	0	0	0	0	2
09:15	46	6	3	2.3	0	0	0	57.3	0	0	0	0	0	0	0	0
09:30	38	6	6	0	0	0	0	50	0	0	0	0	0	0	0	0
09:45	49	10	3	4.6	0	0	0	66.6	0	0	0	0	0	0	0	0
15:00	36	21	6	0	0	0.4	0	63.4	0	0	0	0	0	0	0	0
15:15	55	17	6	2.3	0	0	0	80.3	0	0	0	0	0	0	0	0
15:30	68	28	6	0	0	0	0	102	0	0	0	0	0	0	0	0
15:45	59	26	4.5	2.3	0	0	0	91.8	0	0	0	0	0	0	0	0
16:00	63	27	6	2.3	0	0	0	98.3	0	0	0	0	0	0	0	0
16:15	72	21	7.5	0	0	0	0	100.5	0	0	0	0	0	0	0	0
16:30	83	21	4.5	0	0	0	0	108.5	0	0	0	0	0	0	0	0
16:45	107	16	9	6.9	0	0	0	138.9	1	0	0	0	0	0	0	1
17:00	100	21	4.5	2.3	0	0	0	127.8	0	1	0	0	0	0	0	1
17:15	82	16	3	2.3	0	0	0	103.3	1	0	0	0	0	0	0	1
17:30	94	12	0	2.3	0	0.4	0	108.7	2	1	0	0	0	0	0	3
17:45	103	11	0	4.6	0	0	0	118.6	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	D to C							D to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	25	7	6	2.3	0	0	0	40.3	0	0	0	0	0	0	0	0
07:15	29	8	4.5	2.3	0	0	0	43.8	0	0	0	0	0	0	0	0
07:30	28	12	3	2.3	0	0	0	45.3	0	0	0	0	0	0	0	0
07:45	56	14	9	4.6	0	0	0	83.6	0	0	0	0	0	0	0	0
08:00	33	3	10.5	4.6	0	0	0	51.1	0	0	0	0	0	0	0	0
08:15	44	18	4.5	2.3	0	0	0	68.8	0	0	0	0	0	0	0	0
08:30	36	6	9	2.3	0	0	0	53.3	0	0	0	0	0	0	0	0
08:45	32	7	1.5	6.9	0	0.4	0	47.8	0	0	0	0	0	0	0	0
09:00	38	11	3	4.6	0	0	0	56.6	0	0	0	0	0	0	0	0
09:15	21	3	1.5	11.5	0	0	0	37	0	0	0	0	0	0	0	0
09:30	28	6	3	0	0	0	0	37	0	0	0	0	0	0	0	0
09:45	32	6	1.5	9.2	0	0	0	48.7	0	0	0	0	0	0	0	0
15:00	47	5	0	4.6	0	0	0	56.6	0	0	0	0	0	0	0	0
15:15	36	9	6	6.9	0	0	0	57.9	0	0	0	0	0	0	0	0
15:30	50	8	7.5	2.3	0	0	0	67.8	0	0	0	0	0	0	0	0
15:45	49	14	7.5	9.2	0	0	0	79.7	0	0	0	0	0	0	0	0
16:00	54	18	1.5	6.9	0	0	0	80.4	0	0	0	0	0	0	0	0
16:15	62	13	1.5	4.6	0	0	0	81.1	0	0	0	0	0	0	0	0
16:30	81	9	1.5	4.6	2	0.4	0.2	98.7	0	0	0	0	0	0	0	0
16:45	92	20	4.5	4.6	0	0	0	121.1	0	0	0	0	0	0	0	0
17:00	82	21	4.5	6.9	0	0	0	114.4	0	0	0	0	0	0	0	0
17:15	104	13	4.5	6.9	2	0	0	130.4	0	0	0	0	0	0	0	0
17:30	112	12	1.5	0	0	0.4	0	125.9	0	0	0	0	0	0	0	0
17:45	80	10	3	4.6	2	0	0	99.6	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	C to D							C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	75	20	3	9.2	0	0	0	107.2	51	3	1.5	2.3	8	0	0	65.8
07:15	78	11	6	4.6	0	0	0	99.6	51	4	3	0	0	0.4	0	58.4
07:30	105	19	1.5	2.3	2	0.4	0	130.2	58	6	9	2.3	4	0.4	0	79.7
07:45	92	20	1.5	0	0	0	0	113.5	53	1	0	2.3	0	0	0.2	56.5
08:00	79	11	1.5	0	0	0	0	91.5	71	10	3	4.6	4	0	0	92.6
08:15	48	12	3	0	0	0.4	0	63.4	50	2	4.5	0	2	0	0	58.5
08:30	57	12	4.5	4.6	0	0	0	78.1	64	1	3	0	4	0	0	72
08:45	43	11	4.5	2.3	0	0	0	60.8	68	4	3	13.8	6	0.4	0	95.2
09:00	50	10	7.5	6.9	0	0	0	74.4	59	7	1.5	9.2	0	0	0.2	76.9
09:15	30	5	9	2.3	0	0	0	46.3	46	8	4.5	0	2	0	0	60.5
09:30	30	5	4.5	6.9	0	0	0	46.4	61	12	4.5	4.6	2	0	0	84.1
09:45	18	7	4.5	6.9	0	0	0	36.4	60	6	1.5	4.6	2	0.4	0	74.5
15:00	29	6	1.5	2.3	0	0	0	38.8	74	18	3	0	4	0.4	0	99.4
15:15	31	4	6	0	0	0	0	41	67	10	1.5	2.3	0	0.4	0	81.2
15:30	29	8	6	13.8	0	0	0	56.8	73	2	3	0	10	0	0	88
15:45	34	6	0	4.6	0	0	0	44.6	75	10	0	0	2	0	0	87
16:00	41	16	3	2.3	0	0	0	62.3	82	6	3	4.6	2	0	0	97.6
16:15	42	9	0	0	0	0	0	51	54	9	6	0	4	0	0	73
16:30	40	9	0	0	0	0	0	49	84	13	3	0	2	0	0.2	102.2
16:45	31	8	6	2.3	0	0	0	47.3	75	10	1.5	0	2	0.4	0	88.9
17:00	69	6	0	2.3	2	0	0	79.3	107	6	1.5	4.6	0	0	0	119.1
17:15	42	8	1.5	4.6	0	0	0	56.1	52	11	0	2.3	2	0	0.2	67.5
17:30	39	5	1.5	0	0	0	0	45.5	59	5	0	0	2	0	0.2	66.2
17:45	34	5	1.5	0	0	0	0	40.5	81	11	0	0	2	0.4	0	94.4

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	C to B							C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	82	26	4.5	6.9	4	0	0	123.4	0	0	0	0	0	0	0	0
07:15	113	22	9	11.5	2	0.4	0	157.9	0	0	0	0	0	0	0	0
07:30	116	32	7.5	4.6	0	0	0	160.1	1	0	0	0	0	0	0	1
07:45	110	28	7.5	11.5	0	0	0	157	1	0	0	0	0	0	0	1
08:00	85	14	10.5	13.8	0	0	0	123.3	2	1	0	0	0	0	0	3
08:15	86	18	6	4.6	0	0	0	114.6	0	0	0	0	0	0	0	0
08:30	79	8	4.5	18.4	0	0	0	109.9	1	0	0	0	0	0	0	1
08:45	79	11	6	20.7	2	0	0	118.7	1	0	0	0	0	0	0	1
09:00	84	11	12	4.6	2	0	0	113.6	2	0	0	0	0	0	0	2
09:15	54	12	4.5	11.5	0	0	0	82	1	0	0	0	0	0	0	1
09:30	45	8	7.5	4.6	0	0	0	65.1	1	0	0	0	0	0	0	1
09:45	47	12	9	9.2	0	0	0	77.2	0	0	0	0	0	0	0	0
15:00	59	17	3	6.9	0	0	0	85.9	1	0	0	0	0	0	0	1
15:15	71	18	6	9.2	0	0	0	104.2	0	0	0	0	0	0	0	0
15:30	65	24	7.5	6.9	0	0	0	103.4	3	1	0	0	0	0	0	4
15:45	53	16	9	4.6	0	0	0	82.6	0	0	0	0	0	0	0	0
16:00	71	26	6	2.3	0	0	0	105.3	0	0	0	0	0	0	0	0
16:15	86	14	6	6.9	0	0	0	112.9	2	0	0	0	0	0	0	2
16:30	82	19	6	4.6	0	0	0	111.6	0	0	0	0	0	0	0	0
16:45	74	16	1.5	4.6	0	0	0	96.1	1	0	0	0	0	0	0	1
17:00	114	10	6	6.9	0	0	0	136.9	2	0	0	0	0	0	0	2
17:15	74	14	9	4.6	2	0	0	103.6	1	1	0	0	0	0	0	2
17:30	73	7	6	9.2	0	0	0	95.2	1	0	0	0	0	0	0	1
17:45	59	11	3	6.9	2	0.4	0	82.3	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 22/09/2022

LOCATION: Dod Worth Roundabout DAY: Thursday

	B to C							B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	35	7	3	6.9	0	0	0	51.9	0	0	0	0	0	0	0	0
07:15	53	18	7.5	13.8	2	0	0	94.3	0	0	0	0	0	0	0	0
07:30	72	22	4.5	4.6	2	0	0	105.1	1	0	0	0	0	0	0	1
07:45	71	21	3	9.2	0	0	0	104.2	0	0	0	0	0	0	0	0
08:00	60	18	7.5	11.5	0	0	0	97	0	0	0	0	0	0	0	0
08:15	97	19	10.5	9.2	0	0	0	135.7	0	0	0	0	0	0	0	0
08:30	90	23	6	4.6	0	0	0	123.6	1	0	0	0	0	0	0	1
08:45	77	13	9	4.6	0	0	0	103.6	0	0	0	0	0	0	0	0
09:00	45	11	16.5	20.7	0	0	0	93.2	0	0	0	0	0	0	0	0
09:15	53	12	4.5	4.6	4	0	0	78.1	0	0	0	0	0	0	0	0
09:30	43	9	7.5	4.6	2	0	0	66.1	0	0	0	0	0	0	0	0
09:45	38	12	1.5	2.3	0	0	0	53.8	0	0	0	0	0	0	0	0
15:00	66	14	12	9.2	0	0	0	101.2	0	0	0	0	0	0	0	0
15:15	72	12	7.5	16.1	0	0.4	0	108	0	0	0	0	0	0	0	0
15:30	68	22	7.5	4.6	0	0	0	102.1	0	0	0	0	0	0	0	0
15:45	78	32	4.5	11.5	0	0	0	126	0	0	0	0	0	0	0	0
16:00	89	24	12	16.1	0	0	0	141.1	0	0	0	0	0	0	0	0
16:15	104	13	4.5	20.7	0	0.4	0	142.6	1	0	0	0	0	0	0	1
16:30	91	14	4.5	16.1	2	0.4	0	128	0	0	0	0	0	0	0	0
16:45	118	23	4.5	6.9	2	0	0	154.4	1	0	0	0	0	0	0	1
17:00	112	26	4.5	16.1	0	0.4	0	159	0	0	0	0	0	0	0	0
17:15	119	10	3	9.2	0	0	0	141.2	0	0	0	0	0	0	0	0
17:30	132	18	6	6.9	0	0	0	162.9	1	0	0	0	0	0	0	1
17:45	118	18	1.5	2.3	0	0	0	139.8	0	0	0	0	0	0	0	0

13258 / BARNSLEY
SEPTEMBER 2022
CLASSIFIED TURNING COUNT

SITE: 1

DATE: 22/09/2022

LOCATION: Dod Worth Roundabout

DAY: Thursday

	B to A							B to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	40	14	4.5	9.2	0	0	0	67.7	0	0	0	0	0	0	0	0
07:15	75	19	6	2.3	0	0	0	102.3	0	0	0	0	0	0	0	0
07:30	80	11	9	4.6	0	0	0	104.6	0	0	0	0	0	0	0	0
07:45	125	22	9	6.9	0	0	0	162.9	0	0	0	0	0	0	0	0
08:00	90	10	9	11.5	0	0	0	120.5	0	0	0	0	0	0	0	0
08:15	64	11	0	4.6	0	0	0	79.6	0	0	0	0	0	0	0	0
08:30	81	17	0	4.6	2	0.4	0	105	0	0	0	0	0	0	0	0
08:45	76	19	9	16.1	0	0	0	120.1	0	0	0	0	0	0	0	0
09:00	70	17	9	11.5	0	0	0	107.5	0	0	0	0	0	0	0	0
09:15	71	13	6	9.2	0	0	0	99.2	0	0	0	0	0	0	0	0
09:30	61	14	10.5	6.9	0	0	0	92.4	0	0	0	0	0	0	0	0
09:45	60	13	9	6.9	0	0	0	88.9	0	0	0	0	0	0	0	0
15:00	62	15	9	6.9	0	0	0	92.9	0	0	0	0	0	0	0	0
15:15	64	19	7.5	4.6	0	0	0	95.1	0	0	0	0	0	0	0	0
15:30	80	28	7.5	2.3	0	0	0	117.8	0	0	0	0	0	0	0	0
15:45	79	14	1.5	6.9	0	0	0	101.4	0	0	0	0	0	0	0	0
16:00	84	28	12	6.9	0	0	0	130.9	0	0	0	0	0	0	0	0
16:15	96	25	4.5	11.5	0	0	0	137	0	0	0	0	0	0	0	0
16:30	105	22	7.5	9.2	2	0	0	145.7	0	0	0	0	0	0	0	0
16:45	122	36	9	2.3	0	0.4	0	169.7	0	0	0	0	0	0	0	0
17:00	101	17	9	6.9	0	0	0	133.9	0	0	0	0	0	0	0	0
17:15	130	21	3	0	0	0	0	154	0	0	0	0	0	0	0	0
17:30	124	21	0	9.2	0	0	0	154.2	0	0	0	0	0	0	0	0
17:45	108	13	3	6.9	0	0	0	130.9	0	0	0	0	0	0	0	0

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START	15 MIN	1 HOUR
:00	804	3776
:15	922	**3951**
:30	1016	3913
:45	1035	3759
:00	979	3579
:15	884	3496
:30	862	
:45	854	
:00	895	
PEAK VALUE		**3951**

START	15 MIN	1 HOUR
:00	801	3373
:15	813	3532
:30	921	3694
:45	837	3805
:00	961	4070
:15	975	4261
:30	1032	4342
:45	1102	**4353**
:00	1151	4199
:15	1057	
:30	1044	
:45	948	
PEAK VALUE		**4353**

Appendix F

2019/2022 Traffic Survey Data Comparison

2019/2022 Traffic Survey Data Comparison

Analysis 1: Junction N & M

Junction		Survey Date	Link	AM Peak Hour						PM Peak Hour					
				AM Peak - PCU		AM Peak - Total Vehicles		AM Peak - HGV		PM Peak - PCU		PM Peak - Total Vehicles		PM Peak - HGV	
Ref.	Name			NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
N	Whinby Road/Capitol Close	2019	Whinby Road	838	872	779	822	67	48	823	993	791	971	32	25
M	Whinby Road/B6449	2022		787	871	736	825	61	57	923	936	870	904	58	40
Difference				-51	-1	-43	3	-6	9	100	-56	79	-67	26	15

Analysis 1 Summary. Comparison undertaken of the Whinby Road link flows between junctions N (2018/19 data) and M (2022 data).

AM Peak Hour (Northbound): No action - 2019 flows are higher.
AM Peak Hour (Southbound): 2019 and 2022 flows very similar.
PM Peak Hour (Northbound): 2019 flows are lower - 2019 flows to be uplifted by 100 (PCU), 79 (Total Veh) and 26 (HGV).
PM Peak Hour (Southbound): No action. 2019 flows higher (HGVs are similar).

Flows at Junction O (Whinby Road/Higham Lane) to be uplifted accordingly (e.g. so A628 westbound flows to Junction O match Whinby Road northbound flows)

Analysis 2: Junction C & D

Junction		Survey Date	Link	AM Peak Hour						PM Peak Hour					
				AM Peak - PCU		AM Peak - Total Vehicles		AM Peak - HGV		PM Peak - PCU		PM Peak - Total Vehicles		PM Peak - HGV	
Ref.	Name			NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
C	A635/A637 Roundabout	2019	A635 Barugh Green Road	1031	1123	1014	1102	24	30	1095	1067	1083	1051	15	17
D	A635 Redbrook Road	2022		1062	1063	1042	1036	34	38	1191	1079	1178	1068	21	19
Difference				31	-60	28	-66	10	8	96	13	95	17	6	2

Analysis 2 Summary. Comparison undertaken of the A635 link flows between junctions C (2018/19 data) and D (2023 data).

AM Peak Hour (Northbound): 2019 flows are lower - 2019 flows to be uplifted by 31 (PCU), 28 (Total Veh) and 10 (HGV).
AM Peak Hour (Southbound): No action, 2019 flows are higher.
PM Peak Hour (Northbound): 2019 flows are lower - 2019 flows to be uplifted by 96 (PCU), 95 (Total Veh) and 6 (HGV).
PM Peak Hour (Southbound): No action. 2019 and 2022 flows very similar.

A635 westbound flows followed through from Junction C to Junctions Dn and A (AM and PM), as below:

Through Junction Dn

Time/Direction	PCU	Total Vehicles	HGV
AM Peak (Westbound)	8	7	4
PM Peak (Westbound)	40	39	4

Through Junction A

Time/Direction	PCU	Total Vehicles	HGV
AM Peak (Westbound)	7	6	2
PM Peak (Westbound)	35	35	3

Appendix G

M1 Junction 37 WebTRIS Traffic Data

Northbound On Slip

Report Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Mon 05 Sep 2022	24	18	26	21	74	199	574	871	691	445	389	337	326	349	357	387	474	437	271	166	136	100	73	27	6772
Mon 12 Sep 2022	223	142	111	65	60	210	576	875	611	450	367	354	301	312	356	385	443	430	267	188	151	103	65	36	7081
Mon 19 Sep 2022	20	20	15	22	26	69	100	160	118	170	201	159	169	186	204	225	226	229	201	164	110	70	53	40	2957
Mon 26 Sep 2022	208	131	124	105	139	230	575	850	496	392	322	338	318	338	336	383	453	451	269	193	135	100	74	39	6999
Tue 06 Sep 2022	16	22	15	30	53	203	594	855	681	380	319	340	333	291	346	374	461	496	293	195	144	102	73	35	6651
Tue 13 Sep 2022	17	5	6	29	27	186	557	854	637	404	335	298	292	292	368	400	473	468	292	190	156	117	196	49	6648
Tue 20 Sep 2022	16	11	15	32	48	218	582	892	718	406	342	347	298	337	353	437	490	506	309	213	127	149	83	32	6961
Tue 27 Sep 2022	17	24	21	33	69	209	574	873	661	454	318	330	295	318	388	425	466	490	305	192	129	113	73	38	6815
Wed 07 Sep 2022	17	20	25	34	50	228	603	880	625	423	308	342	308	355	349	418	494	483	294	204	137	103	80	28	6808
Wed 14 Sep 2022	18	24	14	22	52	194	577	895	653	459	324	310	341	312	350	418	545	463	300	190	137	92	78	41	6809
Wed 21 Sep 2022	29	25	15	25	53	214	580	894	636	444	371	368	333	320	383	429	479	493	307	221	135	116	73	44	6987
Wed 28 Sep 2022	32	25	21	27	59	223	570	855	644	436	350	314	326	347	399	427	513	461	285	227	130	121	82	45	6919
Thu 01 Sep 2022	27	16	26	23	53	195	553	762	618	423	368	369	382	410	427	468	576	520	298	237	172	115	92	46	7176
Thu 08 Sep 2022	20	23	19	30	52	212	558	887	679	378	334	341	312	369	369	425	445	455	309	203	128	93	69	63	6773
Thu 15 Sep 2022	29	18	19	38	52	196	566	901	676	432	354	356	360	351	414	396	482	496	299	242	153	113	100	50	7093
Thu 22 Sep 2022	13	20	23	26	53	185	559	860	576	429	333	362	342	334	352	396	456	497	316	193	151	99	90	56	6721
Thu 29 Sep 2022	23																								23
Fri 02 Sep 2022	26	24	31	21	66	189	490	720	509	438	435	426	467	499	434	505	577	497	330	233	150	116	74	70	7327
Fri 09 Sep 2022	24	30	19	32	58	191	516	795	537	398	371	397	372	407	437	436	512	486	345	249	150	179	575	391	7907
Fri 16 Sep 2022	29	17	27	24	62	185	537	828	551	409	379	389	411	406	422	475	545	510	317	229	146	125	91	77	7191
Fri 23 Sep 2022	29	23	24	37	61	178	540	837	540	420	421	378	358	380	408	452	518	508	370	244	172	315	582	361	8156
Fri 30 Sep 2022		36	22	29	67	188	490	821	535	389	372	340	400	373	459	492	566	543	390	212	157	112	96	81	7170
Sat 03 Sep 2022	39	34	24	28	30	94	166	240	240	341	401	394	389	422	350	308	327	345	249	171	126	114	101	91	5024
Sat 10 Sep 2022	267	181	175	155	169	124	149	165	290	332	350	416	446	416	395	390	422	414	319	183	325	679	615		7377
Sat 17 Sep 2022	43	33	21	27	37	101	160	233	316	384	457	431	436	431	360	405	333	360	257	177	132	106	99	92	5431
Sat 24 Sep 2022	261	164	155	143	144	95	162	235	305	371	418	424	474	431	379	356	412	488	235	149	415	597	499	459	7771
Sun 04 Sep 2022	53	26	22	10	35	69	72	119	159	256	335	362	350	425	294	317	294	289	173	176	132	75	63	39	4145
Sun 11 Sep 2022		167	148	122	120	148	111	144	165	258	361	354	391	350	319	227	329	306	219	127	419	841	505	354	6485
Sun 18 Sep 2022	60	32	27	16	41	59	96	153	167	332	406	386	418	370	361	312	349	265	181	180	116	72	76	50	4525
Sun 25 Sep 2022	301	195	136	93	50	81	90	138	173	334	327	380	391	388	347	325	375	290	280	174	196	561	602	482	6709

Bank Holiday

Average Hourly Variation *Note: Monday averages exclude Monday 19th Bank Holiday*

	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Mon	152	97	87	64	91	213	575	865	599	429	359	343	315	333	350	385	457	439	269	182	141	101	71	34
Tue	17	16	14	31	49	204	577	869	674	411	329	329	305	310	364	409	473	490	300	198	139	120	106	39
Wed	24	24	19	27	54	215	583	881	640	441	338	334	327	334	370	423	508	475	297	211	135	108	78	40
Thur	22	19	22	29	53	197	559	853	637	416	347	357	349	366	391	421	490	492	306	219	151	105	88	54
Fri	27	26	25	29	63	186	515	800	534	411	396	386	402	413	432	472	544	509	350	233	155	169	284	196
Sat	153	103	94	88	95	104	159	218	288	357	407	416	436	425	371	365	374	402	265	170	250	374	329	214
Sun	181	131	104	77	70	96	99	145	168	308	365	373	400	369	342	288	351	287	227	160	244	491	394	295
Average Weekday	48	36	33	36	62	203	562	854	617	421	354	350	339	351	381	422	494	481	304	208	144	121	125	72
Average Saturday	153	103	94	88	95	104	159	218	288	357	407	416	436	425	371	365	374	402	265	170	250	374	329	214

Weekday Peak Periods		
Weekday AM Peak Hour	07:00	854
Weekday PM Peak Hour	16:00	494
Saturday Peak Hour	12:00	436

Northbound Off Slip

Report Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Mon 05 Sep 2022	34	25	14	30	49	142	388	758	846	552	457	541	510	509	690	692	1007	1093	692	408	309	214	133	56	10149
Mon 12 Sep 2022	3	1	0	20	49	144	379	756	922	556	461	491	558	572	630	685	950	1043	666	390	265	228	134	71	9974
Mon 19 Sep 2022	49	33	22	25	15	43	95	157	155	162	211	186	220	224	310	317	314	307	259	226	168	133	81	60	3772
Mon 26 Sep 2022	3	2	6	0	32	138	370	857	944	557	435	479	521	585	684	758	971	1052	636	413	294	201	142	64	10144
Tue 06 Sep 2022	45	37	20	31	44	143	367	813	912	578	445	481	551	577	642	809	935	1110	808	451	324	209	165	86	10583
Tue 13 Sep 2022	53	13	21	28	39	160	387	799	919	566	468	481	553	580	634	767	1049	1233	851	440	266	204	168	69	10748
Tue 20 Sep 2022	36	22	25	23	52	165	359	812	1026	610	530	521	568	557	666	739	990	975	826	460	309	269	175	69	10784
Tue 27 Sep 2022	42	31	45	41	49	172	368	802	912	547	427	560	525	584	706	761	1006	1107	739	438	307	225	189	86	10669
Wed 07 Sep 2022	56	34	24	27	36	135	391	814	949	618	543	536	550	577	703	733	987	1059	753	407	317	260	159	77	10745
Wed 14 Sep 2022	55	29	30	21	50	145	350	801	951	572	502	484	547	529	666	760	978	1131	814	462	290	242	182	71	10662
Wed 21 Sep 2022	54	32	31	39	42	156	396	854	954	613	513	504	525	565	698	791	1043	1107	746	479	335	245	194	81	10997
Wed 28 Sep 2022	44	43	39	24	47	173	386	805	895	572	463	502	533	628	736	821	1020	1080	726	432	303	225	166	92	10755
Thu 01 Sep 2022	52	32	22	22	46	144	358	726	879	566	626	561	594	594	671	809	1008	1061	809	458	343	261	154	89	10885
Thu 08 Sep 2022	54	31	28	23	37	143	368	817	941	637	480	509	599	576	637	807	1024	1034	836	408	350	219	150	90	10798
Thu 15 Sep 2022	56	32	30	32	43	151	344	778	899	587	488	499	590	577	767	759	888	1152	764	493	327	238	176	81	10751
Thu 22 Sep 2022	46	39	33	38	46	164	374	758	892	596	533	536	540	586	687	792	1092	1160	821	487	348	256	181	92	11097
Thu 29 Sep 2022	43																								43
Fri 02 Sep 2022	45	41	24	30	55	147	343	690	828	558	536	633	684	679	805	872	973	967	721	538	334	266	191	124	11084
Fri 09 Sep 2022	72	32	17	26	40	133	348	772	817	550	497	551	667	727	814	827	1015	947	737	486	286	102	3	7	10473
Fri 16 Sep 2022	41	35	36	17	51	143	377	742	851	531	473	594	613	655	748	731	911	872	725	497	317	241	198	113	10512
Fri 23 Sep 2022	45	46	46	37	49	144	329	769	824	591	525	561	657	704	812	914	952	868	739	482	314	62	2	5	10477
Fri 30 Sep 2022		35	36	35	39	165	342	776	842	533	474	604	625	697	736	863	857	908	717	543	346	257	171	108	10709
Sat 03 Sep 2022	74	42	29	42	24	62	136	219	330	374	522	567	632	628	577	547	545	607	609	412	282	237	171	147	7815
Sat 10 Sep 2022	11	6	3	0	4	50	128	231	318	414	466	555	595	593	561	540	528	560	434	323	94	1	4		6419
Sat 17 Sep 2022	78	44	34	25	25	61	145	236	341	467	577	612	673	668	639	633	585	625	522	428	294	214	183	120	8229
Sat 24 Sep 2022	0	2	1	0	10	52	146	212	305	451	512	483	521	421	543	489	531	571	492	345	69	4	0	0	6160
Sun 04 Sep 2022	69	40	45	25	25	37	94	129	140	324	396	532	624	698	564	609	614	466	360	308	204	163	114	62	6642
Sun 11 Sep 2022		0	0	0	0	23	87	147	153	236	325	405	572	589	549	513	532	492	387	232	62	3	2	15	5324
Sun 18 Sep 2022	79	54	45	31	26	38	84	144	149	294	410	519	605	694	621	608	537	562	354	283	223	137	103	78	6678
Sun 25 Sep 2022	1	0	1	2	16	39	94	138	188	365	422	521	627	588	473	528	490	387	369	318	129	1	0	6	5703

Bank Holiday

Average Hourly Variation *Note: Monday averages exclude Monday 19th Bank Holiday*

	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Mon	13	9	7	17	43	141	379	790	904	555	451	504	530	555	668	712	976	1063	665	404	289	214	136	64
Tue	44	26	28	31	46	160	370	807	942	575	468	511	549	575	662	769	995	1106	806	447	302	227	174	78
Wed	52	35	31	28	44	152	381	819	937	594	505	507	539	575	701	776	1007	1094	760	445	311	243	175	80
Thur	50	34	28	29	43	151	361	770	903	597	532	526	581	583	691	792	1003	1102	808	462	342	244	165	88
Fri	51	38	32	29	47	146	348	750	832	553	501	589	649	692	783	841	942	912	728	509	319	186	113	71
Sat	41	24	17	17	16	56	139	225	324	427	519	554	605	578	580	552	547	591	514	377	185	114	90	89
Sun	40	18	15	11	14	33	88	143	163	298	386	482	601	624	548	550	520	480	370	278	138	47	35	33
Average Weekday	42	28	25	27	45	150	368	787	904	575	491	527	570	596	701	778	985	1055	753	453	313	223	153	76
Average Saturday	41	24	17	17	16	56	139	225	324	427	519	554	605	578	580	552	547	591	514	377	185	114	90	89

Weekday Peak Periods		
Weekday AM Peak Hour	08:00	904
Weekday PM Peak Hour	17:00	1055
Saturday Peak Hour	12:00	605

Southbound On Slip

Report Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Mon 05 Sep 2022	23	26	33	42	91	316	582	1039	820	630	554	575	520	524	590	643	864	886	487	360	239	174	95	45	10158
Mon 12 Sep 2022	32	33	26	36	120	332	586	1029	890	667	555	576	554	527	564	671	875	832	442	328	249	160	89	50	10223
Mon 19 Sep 2022	36	36	25	28	28	72	111	191	188	214	233	219	232	254	291	292	260	305	215	220	141	104	83	46	3824
Mon 26 Sep 2022	0	2	11	33	85	333	606	1121	887	618	560	517	582	518	614	688	902	874	456	332	225	179	115	62	10320
Tue 06 Sep 2022	27	33	23	41	76	294	615	1117	844	625	541	548	568	540	554	623	886	928	505	350	268	190	134	51	10381
Tue 13 Sep 2022	29	35	18	47	47	293	581	1086	941	642	562	538	568	554	568	668	931	925	516	358	249	212	244	55	10667
Tue 20 Sep 2022	30	25	27	36	97	356	645	1137	994	656	588	548	564	553	631	631	956	912	519	355	251	190	111	64	10876
Tue 27 Sep 2022	31	42	30	58	105	319	612	1108	878	661	570	506	576	533	638	703	955	950	553	337	238	171	120	57	10751
Wed 07 Sep 2022	35	36	29	36	95	298	606	1086	932	622	568	562	596	538	646	725	913	957	524	339	237	177	132	43	10732
Wed 14 Sep 2022	40	39	40	37	83	316	592	1102	875	627	530	499	564	531	601	682	685	687	529	347	269	183	119	45	10022
Wed 21 Sep 2022	29	33	43	43	78	307	617	1153	884	663	584	559	556	556	578	673	982	955	526	352	261	170	125	66	10793
Wed 28 Sep 2022	30	32	26	37	76	308	591	1129	892	616	544	542	582	614	627	721	893	930	566	316	254	172	91	52	10641
Thu 01 Sep 2022	32	37	29	37	84	286	593	1007	876	615	612	535	564	612	650	771	887	927	524	369	336	187	119	40	10729
Thu 08 Sep 2022	36	38	36	38	76	285	566	1061	881	690	571	554	575	569	645	720	903	936	548	359	273	184	111	48	10703
Thu 15 Sep 2022	38	28	32	29	90	274	598	1099	838	675	616	526	601	558	615	665	948	887	548	377	299	157	127	53	10678
Thu 22 Sep 2022	42	37	35	37	97	295	560	1100	856	649	593	576	539	544	655	751	888	839	549	405	288	209	152	63	10759
Thu 29 Sep 2022	36																								36
Fri 02 Sep 2022	38	37	47	32	91	260	502	951	763	631	640	680	686	614	736	815	879	827	556	353	252	162	123	92	10767
Fri 09 Sep 2022	26	37	27	35	77	254	547	973	774	656	649	610	655	627	688	836	816	779	530	394	245	192	124	84	10635
Fri 16 Sep 2022	47	32	42	33	83	280	542	919	775	662	623	576	622	679	692	732	911	785	518	381	248	167	136	91	10576
Fri 23 Sep 2022	44	41	33	35	75	274	557	1019	819	668	602	588	655	614	676	808	918	836	568	372	234	157	1	0	10594
Fri 30 Sep 2022		30	37	35	78	250	560	993	764	679	626	595	645	714	719	739	817	789	603	369	208	147	0	0	10397
Sat 03 Sep 2022	57	54	33	33	47	127	162	319	429	551	629	648	740	667	558	507	497	501	414	269	241	155	124	72	7834
Sat 10 Sep 2022	51	54	43	26	40	123	166	300	381	438	559	562	625	593	570	531	533	493	363	249	181	124	121		7126
Sat 17 Sep 2022	54	44	37	36	47	101	180	284	400	549	581	672	685	687	578	575	464	517	411	280	229	184	155	104	7854
Sat 24 Sep 2022	2	1	2	1	12	117	188	295	397	524	583	751	1023	956	637	507	453	492	368	275	3	1	0	0	7588
Sun 04 Sep 2022	75	37	40	38	48	65	125	187	238	407	608	678	614	613	485	463	410	367	297	300	222	136	92	52	6597
Sun 11 Sep 2022		42	42	30	46	72	106	167	214	335	497	541	553	514	458	429	407	393	348	249	171	101	94	59	5868
Sun 18 Sep 2022	84	59	30	48	36	96	112	195	251	427	570	670	659	647	590	478	447	384	331	229	166	114	78	49	6750
Sun 25 Sep 2022	1	0	1	9	27	55	108	200	291	443	557	602	565	683	539	450	527	595	369	218	248	1	0	4	6493

Bank Holiday

Average Hourly Variation *Note: Monday averages exclude Monday 19th Bank Holiday*

	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Mon	18	20	23	37	99	327	591	1063	866	638	556	556	552	523	589	667	880	864	462	340	238	171	100	52
Tue	29	34	25	46	81	316	613	1112	914	646	565	535	569	545	598	656	932	929	523	350	252	191	152	57
Wed	34	35	35	38	83	307	602	1118	896	632	557	541	575	560	613	700	868	882	536	339	255	176	117	52
Thur	37	35	33	35	87	285	579	1067	863	657	598	548	570	571	641	727	907	897	542	378	299	184	127	51
Fri	39	35	37	34	81	264	542	971	779	659	628	610	653	650	702	786	868	803	555	374	237	165	77	53
Sat	41	38	29	24	37	117	174	300	402	516	588	658	768	726	586	530	487	501	389	268	164	116	100	59
Sun	43	34	24	29	36	74	109	187	252	402	541	604	592	615	529	452	460	457	349	232	195	72	57	37
Average Weekday	31	32	31	38	86	300	585	1066	863	647	581	558	584	570	629	707	891	875	524	356	256	177	115	53
Average Saturday	41	38	29	24	37	117	174	300	402	516	588	658	768	726	586	530	487	501	389	268	164	116	100	59

Weekday Peak Periods		
Weekday AM Peak Hour	07:00	1066
Weekday PM Peak Hour	16:00	891
Saturday Peak Hour	12:00	768

Southbound Off Slip

Report Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Mon 05 Sep 2022	27	17	13	31	34	69	195	471	516	375	387	341	375	354	443	532	728	744	432	255	147	105	68	55	6714
Mon 12 Sep 2022	33	24	19	27	40	80	192	531	678	458	335	316	371	376	437	470	784	760	437	231	164	138	96	50	7047
Mon 19 Sep 2022	43	27	21	13	26	31	74	84	113	143	203	174	175	218	251	246	246	253	238	207	133	80	72	38	3109
Mon 26 Sep 2022	212	116	82	22	44	75	191	447	557	416	332	318	353	370	396	495	701	674	536	264	146	122	78	38	6985
Tue 06 Sep 2022	34	22	20	27	39	78	210	474	576	376	315	321	384	410	445	511	773	765	474	269	157	132	83	59	6954
Tue 13 Sep 2022	31	9	12	29	13	69	196	442	597	384	326	305	320	358	411	538	761	792	573	302	175	153	99	69	6964
Tue 20 Sep 2022	26	14	13	24	40	72	207	473	640	454	338	322	308	361	459	492	838	885	533	280	159	122	89	62	7211
Tue 27 Sep 2022	39	29	25	21	38	78	196	458	592	383	315	317	316	380	456	523	745	749	558	300	182	117	102	53	6972
Wed 07 Sep 2022	24	23	25	24	30	68	223	496	568	414	349	296	325	352	475	510	781	829	479	264	181	137	88	70	7031
Wed 14 Sep 2022	49	17	19	33	28	71	210	473	666	409	319	296	309	395	407	523	1164	1120	521	277	168	136	99	64	7773
Wed 21 Sep 2022	48	24	23	25	24	73	188	510	622	410	319	322	317	378	421	558	795	811	478	305	224	159	105	53	7192
Wed 28 Sep 2022	27	21	22	29	23	66	197	485	615	438	324	425	337	339	438	540	757	829	474	300	177	154	101	54	7172
Thu 01 Sep 2022	46	24	23	23	38	79	196	448	563	402	361	351	365	413	492	550	746	730	447	327	227	160	118	64	7193
Thu 08 Sep 2022	46	27	22	31	21	62	184	450	563	440	299	325	326	388	432	523	746	834	476	259	185	125	102	67	6933
Thu 15 Sep 2022	38	18	25	32	45	85	212	445	605	444	353	359	352	377	456	562	787	882	498	298	212	143	92	67	7387
Thu 22 Sep 2022	28	21	17	30	41	82	204	505	538	400	296	295	375	331	437	563	812	908	490	291	190	135	96	71	7156
Thu 29 Sep 2022	33																								33
Fri 02 Sep 2022	48	22	27	31	36	60	197	416	505	353	363	403	450	547	519	603	674	602	440	296	166	141	113	63	7075
Fri 09 Sep 2022	38	26	29	42	21	62	196	436	554	372	317	364	422	488	435	541	659	597	426	281	191	155	109	79	6840
Fri 16 Sep 2022	36	28	32	25	33	73	202	412	508	468	360	375	406	441	534	620	750	658	506	264	179	152	113	69	7244
Fri 23 Sep 2022	35	24	23	31	36	62	197	439	542	388	363	392	427	470	495	584	737	659	471	314	184	351	542	324	8090
Fri 30 Sep 2022		31	16	34	25	66	187	438	596	371	365	380	418	432	519	627	687	636	484	260	201	446	572	397	8188
Sat 03 Sep 2022	49	49	32	21	28	51	85	147	232	242	336	442	457	426	391	378	347	344	343	240	184	135	110	82	5151
Sat 10 Sep 2022	58	39	25	28	23	43	109	194	279	339	403	442	431	422	413	376	374	352	305	202	186	120	112		5275
Sat 17 Sep 2022	47	35	20	31	14	42	94	176	232	327	377	401	498	435	422	370	373	413	367	234	166	150	94	92	5410
Sat 24 Sep 2022	224	182	175	184	197	63	104	182	255	278	366	686	1126	1130	714	413	419	369	316	234	336	617	546	400	9516
Sun 04 Sep 2022	62	36	28	22	18	25	61	113	100	239	289	355	436	415	399	370	367	330	279	226	156	81	67	40	4514
Sun 11 Sep 2022		53	37	26	28	29	62	96	134	229	286	325	390	440	355	338	381	357	295	212	168	105	79	64	4489
Sun 18 Sep 2022	68	42	33	22	21	25	77	115	124	215	316	376	423	437	407	394	409	386	303	198	160	109	60	79	4799
Sun 25 Sep 2022	289	195	121	108	35	39	74	114	134	236	321	380	516	711	577	469	732	842	414	234	545	666	431	318	8501

Bank Holiday

Average Hourly Variation *Note: Monday averages exclude Monday 19th Bank Holiday*

	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Mon	91	52	38	27	39	75	193	483	584	416	351	325	366	367	425	499	738	726	468	250	152	122	81	48
Tue	33	19	18	25	33	74	202	462	601	399	324	316	332	377	443	516	779	798	535	288	168	131	93	61
Wed	37	21	22	28	26	70	205	491	618	418	328	335	322	366	435	533	874	897	488	287	188	147	98	60
Thur	38	23	22	29	36	77	199	462	567	422	327	333	355	377	454	550	773	839	478	294	204	141	102	67
Fri	39	26	25	33	30	65	196	428	541	390	354	383	425	476	500	595	701	630	465	283	184	249	290	186
Sat	95	76	63	66	66	50	98	175	250	297	371	493	628	603	485	384	378	370	333	228	218	256	216	191
Sun	179	97	64	52	28	31	71	108	131	227	308	360	443	529	446	400	507	528	337	215	291	293	190	154
Average Weekday	48	28	25	28	33	72	199	465	582	409	337	338	360	393	452	538	773	778	487	280	179	158	133	84
Average Saturday	95	76	63	66	66	50	98	175	250	297	371	493	628	603	485	384	378	370	333	228	218	256	216	191

Weekday Peak Periods		
Weekday AM Peak Hour	08:00	582
Weekday PM Peak Hour	17:00	778
Saturday Peak Hour	12:00	628

Appendix H

BMBC Correspondence - Committed Developments

Robert Jackson [redacted]

RE: Barnsley West (MU1) Development Impact

1 message

Lake , Wayne (GROUP LEADER HDC) [redacted] 18 September 2023 at 09:05
To: Robert Jackson [redacted]
Cc: Adam Smout [redacted] "Ward , Elaine (SENIOR PLANNING OFFICER)" [redacted]

Good morning Robert,

Further to my e-mail below, and having considered the study area please find the following:

Table 30

2013/0280 and 2019/0011	Proposed residential development (175 dwellings) at Dearne Hall Road	This site is currently under construction / occupation. TA to account for units not built / occupied.
2016/0259	Smithy Wood Lane - Residential development of 36 dwellings	This application has now lapsed. Current application is 2021/1642.
2016/0268	Green Road - Residential development of 50 dwellings	This application now lapsed. Current application is 2022/0591.
2017/1002	Capitol Park - Development of approximately 7,000 sqm of industrial land use	Believe this to be built out / occupied.
2016/0713	Capitol Park Industrial Estate - Outline application for 16,499 sqm GFA of industrial development	Believe this to be built out / occupied
2017/0987	Capitol Park - NHS blood storage facility on Unit C	Believe this to be built out / occupied
B/04/1998/DO	Capitol Park - Industrial development with a site area of 0.95 hectares	Unable to find details of this application.
2018/0965	Penny Pie Park Gyratory - Highway Improvement Scheme	Scheme now constructed and operational

2019/0286	Capitol Park - Employment development of approximately 16,723 sqm

Yes to be included.
Reserved matters application approved under 2022/0916.

2020/0977	Land off Barugh Green Road - Residential development of 140 dwellings (this is part of MU1 allocation, but in separate ownership)

Yes to be included

2020/0040	Highways works comprising the linking of Capitol Close and Higham Lane via a new roundabout

Yes to be included

2019/1567	Highways works comprising construction of new roundabout on Barugh Green Road to create a road link into MU1 Local Plan allocation site

This should read application ref 2020/0027

2020/0028	Highways works comprising construction of new roundabout on Higham Common Road to create a road link into MU1 Local Plan allocation site

Yes to be included

2021/1631: Erection of a new secondary school at land off Keresforth Close, Barnsley

2021/1642: Residential development of 198 dwellings at land off Smithywood Lane and Calver Close, Gilroyd, Barnsley

2022/0016: Residential development of 215 dwellings at land north of Keresforth Road, Dodworth, Barnsley.

In addition, I recommend that consideration should also be given to the following:

2022/0619

HS11

HS25

2022/0471

2021/1405

2017/1451 (Current reserved matters app 2022/0633)

2017/0520

As ever I am happy to discuss, should you require clarification on any of the above.

Kind Regards

Wayne

Wayne Lake MSc MCIHT

Group Leader - Highways Development Control

Transport

Growth and Sustainability

Barnsley Council

Telephone: [redacted]

Email: [redacted]

Mail: PO Box 634, BARNSLEY. S70 9GG

*Sat Nav reference: S70 2DR

From: Lake , Wayne (GROUP LEADER HDC)
Sent: 09 September 2023 08:53
To: Robert Jackson [redacted]
Cc: Adam Smout [redacted] Ward , Elaine (SENIOR PLANNING OFFICER) [redacted]
Subject: RE: Barnsley West (MU1) Development Impact

Morning Robert,

Many thanks for your enquiry.

Having reviewed the list below, yes I can confirm that the three most recent applications will require consideration as committed developments.

With regards the previously agreed list shown in Table 30 of the Transport Assessment, I note that some of these approvals have now lapsed or developments have been built out and now occupied. Notwithstanding this however I intend to liaise internally with colleagues this coming week to provide a definitive list / response and update on those listed in Table 30.

I trust this is satisfactory and hope this information proves useful.

Kind Regards

Wayne

Wayne Lake MSc MCIHT

Group Leader - Highways Development Control

Transport

Growth and Sustainability

Barnsley Council

Telephone: [redacted]

Email: [redacted]

Mail: PO Box 634, BARNSLEY. S70 9GG

*Sat Nav reference: S70 2DR

From: Robert Jackson [redacted]
Sent: 30 August 2023 16:00
To: Lake , Wayne (GROUP LEADER HDC) [redacted]
Cc: Adam Smout [redacted]; HighwaysPlngApps [redacted]
Thomas , Jason (GROUP LEADER TRANSPORT) [redacted]
Subject: Re: Barnsley West (MU1) Development Impact

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Wayne,

Hope you are well. Now we are looking at a wider study area, could you please confirm any additional committed developments we need to consider? For reference, we were asked to consider the following schemes previously.

Table 30: Committed Developments

Planning Reference	Application Summary
2013/0280 and 2019/0011	Proposed residential development (175 dwellings) at Dearne Hall Road
2016/0259	Smithy Wood Lane - Residential development of 36 dwellings
2016/0268	Green Road - Residential development of 50 dwellings
2017/1002	Capitol Park - Development of approximately 7,000 sqm of industrial land use
2016/0713	Capitol Park Industrial Estate - Outline application for 16,499 sqm GFA of industrial development
2017/0987	Capitol Park - NHS blood storage facility on Unit C
B/04/1998/DO	Capitol Park - Industrial development with a site area of 0.95 hectares
2018/0965	Penny Pie Park Gyratory - Highway Improvement Scheme
2019/0286	Capitol Park - Employment development of approximately 16,723 sqm
2020/0977	Land off Barugh Green Road - Residential development of 140 dwellings (this is part of MU1 allocation, but in separate ownership)
2020/0040	Highways works comprising the linking of Capitol Close and Higham Lane via a new roundabout
2019/1567	Highways works comprising construction of new roundabout on Barugh Green Road to create a road link into MU1 Local Plan allocation site
2020/0028	Highways works comprising construction of new roundabout on Higham Common Road to create a road link into MU1 Local Plan allocation site

In addition to the above, we are aware of the following sites:

2021/1631: Erection of a new secondary school at land off Keresforth Close, Barnsley

2021/1642: Residential development of 198 dwellings at land off Smithywood Lane and Calver Close, Gilroyd, Barnsley

2022/0016: Residential development of 215 dwellings at land north of Keresforth Road, Dodworth, Barnsley.

Thanks in advance,

Rob

Robert Jackson

Senior Transport Planner

[redacted]

[redacted]

Fore Consulting Limited
Suite 18, City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP

www.foreconsulting.co.uk

Appendix I

NTM/TEMPro Background Traffic Growth Factor Methodology

NTEM/TEMPro Traffic Growth

Version 8.1

NRTP 2022 Core Dataset

Years	2022 to 2026
Location	Barnsley (Authority)
Road Type	Local Highway Network: A Road
	M1 J37: Motorway

Time Period	Current Assumptions		Alternative Assumptions	
	Local	M1 J37	Local	M1 J37
AM Peak Period	1.0242	1.0401	1.0069	1.0225
PM Peak Period	1.0242	1.0401	1.0071	1.0228

Growth Period	Current Assumptions						Alternative Assumptions					
	Base HH	Future HH	Increase	Base Jobs	Future Jobs	Increase	Base HH	Future HH	Increase	Base Jobs	Future Jobs	Increase
2022-2026	108,548	111,202	2,654	92,140	93,966	1,826	108,548	109,605	1,057	92,140	92,140	0

Note: The future household projection has been reduced to account for the allocated sites considered in the future year analysis.

Note: The future job projection has been reduced to the base level as the predicted no. of employees for allocated sites considered in the future year analysis exceed the projected increase in jobs in TEMPro.

Alternative Assumptions Calculations

Table 1: Residential Proposed/Committed Developments

Planning Application Ref.	Local Plan Ref.	No. Dwellings Allocated
2013/0280	Not allocated	0
2017/0520	HS8	135
2017/0990	HS11	214
2017/1451	HS17	232
2020/0977	MU1	140
2021/1405	HS3	97
2021/1642	HS9 and HS15	180
2022/0016	HS10	175
2022/0471	Not allocated	0
2022/0591	Not allocated	0
2022/0619	HS1	90
N/A	HS25	118
Proposed Development	MU1	216
Total		1,597

Table 2: Employment Proposed/Committed Developments

Planning Application Ref.	Local Plan Ref.	B1	B2	B8	Total
2022/0916	ES4	0	16,723	0	16,723
Proposed Development	MU1	0	28,045	84,136	112,181
Total		0	44,768	84,136	128,904

Table 3: Predicted No. Jobs Associated with Proposed/Committed Developments

Use	Quantum	sqm/Employee	Employees
B1 Floor Area (sqm)	0	12	0
B2 Floor Area (sqm)	44,768	36	1,244
B8 Floor Area (sqm)	84,136	77	1,093
Total	128,904		2,336

NTEM/TEMPro Traffic Growth

Version 8.1

NRTP 2022 Core Dataset

Years	2022 to 2033
Location	Barnsley (Authority)
Road Type	Local Highway Network: A Road
	M1 J37: Motorway

Time Period	Current Assumptions		Alternative Assumptions	
	Local	M1 J37	Local	M1 J37
AM Peak Period	1.0951	1.1502	1.0679	1.1216
PM Peak Period	1.0955	1.1507	1.0683	1.1220

Growth Period	Current Assumptions						Alternative Assumptions					
	Base HH	Future HH	Increase	Base Jobs	Future Jobs	Increase	Base HH	Future HH	Increase	Base Jobs	Future Jobs	Increase
2022-2026	108,548	115,722	7,174	92,140	95,752	3,612	108,548	112,781	4,233	92,140	93,416	1,276

Note: The future household projection has been reduced to account for the allocated sites considered in the future year analysis.

Note: The future job projection has been reduced to account for the allocated sites considered in the future year analysis.

Alternative Assumptions Calculations

Table 1: Residential Proposed/Committed Developments

Planning Application Ref.	Local Plan Ref.	No. Dwellings Allocated
2013/0280	Not allocated	0
2017/0520	HS8	135
2017/0990	HS11	214
2017/1451	HS17	232
2020/0977	MU1	140
2021/1405	HS3	97
2021/1642	HS9 and HS15	180
2022/0016	HS10	175
2022/0471	Not allocated	0
2022/0591	Not allocated	0
2022/0619	HS1	90
N/A	HS25	118
Proposed Development	MU1	1560
Total		2,941

Table 2: Employment Proposed/Committed Developments

Planning Application Ref.	Local Plan Ref.	B1	B2	B8	Total
2022/0916	ES4	0	16,723	0	16,723
Proposed Development	MU1	0	28,045	84,136	112,181
Total		0	44,768	84,136	128,904

Table 3: Predicted No. Jobs Associated with Proposed/Committed Developments

Use	Quantum	sqm/Employee	Employees
B1 Floor Area (sqm)	0	12	0
B2 Floor Area (sqm)	44,768	36	1,244
B8 Floor Area (sqm)	84,136	77	1,093
Total	128,904		2,336

NTEM/TEMPro Traffic Growth - National Highways Assessment

Version 8.1

NRTP 2022 Core Dataset

Years	2022 to 2026
Location	Barnsley (Authority)
Road Type	Local Highway Network: A Road
	M1 J37: Motorway

Time Period	Current Assumptions		Alternative Assumptions	
	Local	M1 J37	Local	M1 J37
AM Peak Period	1.0242	1.0401	1.0022	1.0177
PM Peak Period	1.0242	1.0401	1.0019	1.0174

Growth Period	Current Assumptions						Alternative Assumptions					
	Base HH	Future HH	Increase	Base Jobs	Future Jobs	Increase	Base HH	Future HH	Increase	Base Jobs	Future Jobs	Increase
2022-2026	108,548	111,202	2,654	92,140	93,966	1,826	108,548	108,548	0	92,140	92,140	0

Note: The future household projection has been reduced to the base level as the predicted no. of housholds for the proposed development and committed developments exceed the projected increase in households in TEMPro.

Note: The future job projection has been reduced to the base level as the predicted no. of employees for the proposed development and committed developments exceed the projected increase in jobs in TEMPro.

Alternative Assumptions Calculations

Table 1: Residential Proposed/Committed Developments

Planning Application Ref.	Local Plan Ref.	No. Dwellings Allocated
2013/0280	Not allocated	0
2017/0520	HS8	135
2017/0990	HS11	214
2017/1451	HS17	232
2020/0977	MU1	140
2021/1405	HS3	97
2021/1642	HS9 and HS15	180
2022/0016	HS10	175
2022/0471	Not allocated	0
2022/0591	Not allocated	0
2022/0619	HS1	90
N/A	HS25	118
Proposed Development	MU1	1560
Total		2,941

Table 2: Employment Proposed/Committed Developments

Planning Application Ref.	Local Plan Ref.	B1	B2	B8	Total
2022/0916	ES4	0	16,723	0	16,723
Proposed Development	MU1	0	28,045	84,136	112,181
Total		0	44,768	84,136	128,904

Table 3: Predicted No. Jobs Associated with Proposed/Committed Developments

Use	Quantum	sqm/Employee	Employees
B1 Floor Area (sqm)	0	12	0
B2 Floor Area (sqm)	44,768	36	1,244
B8 Floor Area (sqm)	84,136	77	1,093
Total	128,904		2,336

Appendix J-1

Junctions 10 Output – Barugh Green Site Access Roundabout

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: 2023-11-03_Proposed Barugh Green Road Roundabout.j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Proposed Barugh Green Road Roundabout
Report generation date: 09/11/2023 10:46:16

»2026 Residential Phase 1a, AM
»2026 Residential Phase 1a, PM
»2033 Full Residential, AM
»2033 Full Residential, PM
»2026 Employment , AM
»2026 Employment , PM
»2026 Phase 1 (Without Link Road), AM
»2026 Phase 1 (Without Link Road), PM
»2026 Phase 1 (With Link Road), AM
»2026 Phase 1 (With Link Road), PM
»2033 Full Development, AM
»2033 Full Development, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2026 Residential Phase 1a						
1 - Cannon Way	0.1	4.45	0.08	0.2	4.00	0.13
2 - Barugh Green Road east	0.3	3.16	0.23	0.7	3.91	0.39
3 - Site Access	0.0	2.72	0.05	0.0	3.01	0.03
4 - Barugh Green Road west	0.6	3.42	0.37	0.4	3.02	0.28
2033 Full Residential						
1 - Cannon Way	0.2	7.48	0.14	0.2	5.71	0.19
2 - Barugh Green Road east	0.8	4.32	0.42	4.6	14.14	0.83
3 - Site Access	0.8	4.85	0.45	0.5	4.13	0.31
4 - Barugh Green Road west	1.4	6.21	0.58	0.8	4.28	0.43
2026 Employment						
1 - Cannon Way	0.1	4.42	0.08	0.2	4.00	0.13
2 - Barugh Green Road east	0.4	3.33	0.27	0.6	3.83	0.38
3 - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
4 - Barugh Green Road west	0.6	3.46	0.38	0.4	3.06	0.29
2026 Phase 1 (Without Link Road)						
1 - Cannon Way	0.1	4.53	0.08	0.2	4.13	0.14
2 - Barugh Green Road east	0.4	3.36	0.27	0.7	4.05	0.40
3 - Site Access	0.0	2.81	0.05	0.0	3.05	0.03
4 - Barugh Green Road west	0.7	3.55	0.39	0.5	3.17	0.31
2026 Phase 1 (With Link Road)						
1 - Cannon Way	0.1	6.71	0.12	0.2	5.33	0.17
2 - Barugh Green Road east	0.8	4.50	0.43	2.5	8.74	0.71
3 - Site Access	0.6	4.29	0.37	0.4	4.10	0.30
4 - Barugh Green Road west	1.3	5.60	0.55	0.7	4.03	0.40
2033 Full Development						
1 - Cannon Way	0.2	8.17	0.15	0.3	6.09	0.20
2 - Barugh Green Road east	0.9	4.86	0.47	5.4	16.48	0.85
3 - Site Access	1.0	5.32	0.49	0.6	4.69	0.38
4 - Barugh Green Road west	1.7	7.07	0.62	0.9	4.58	0.45

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

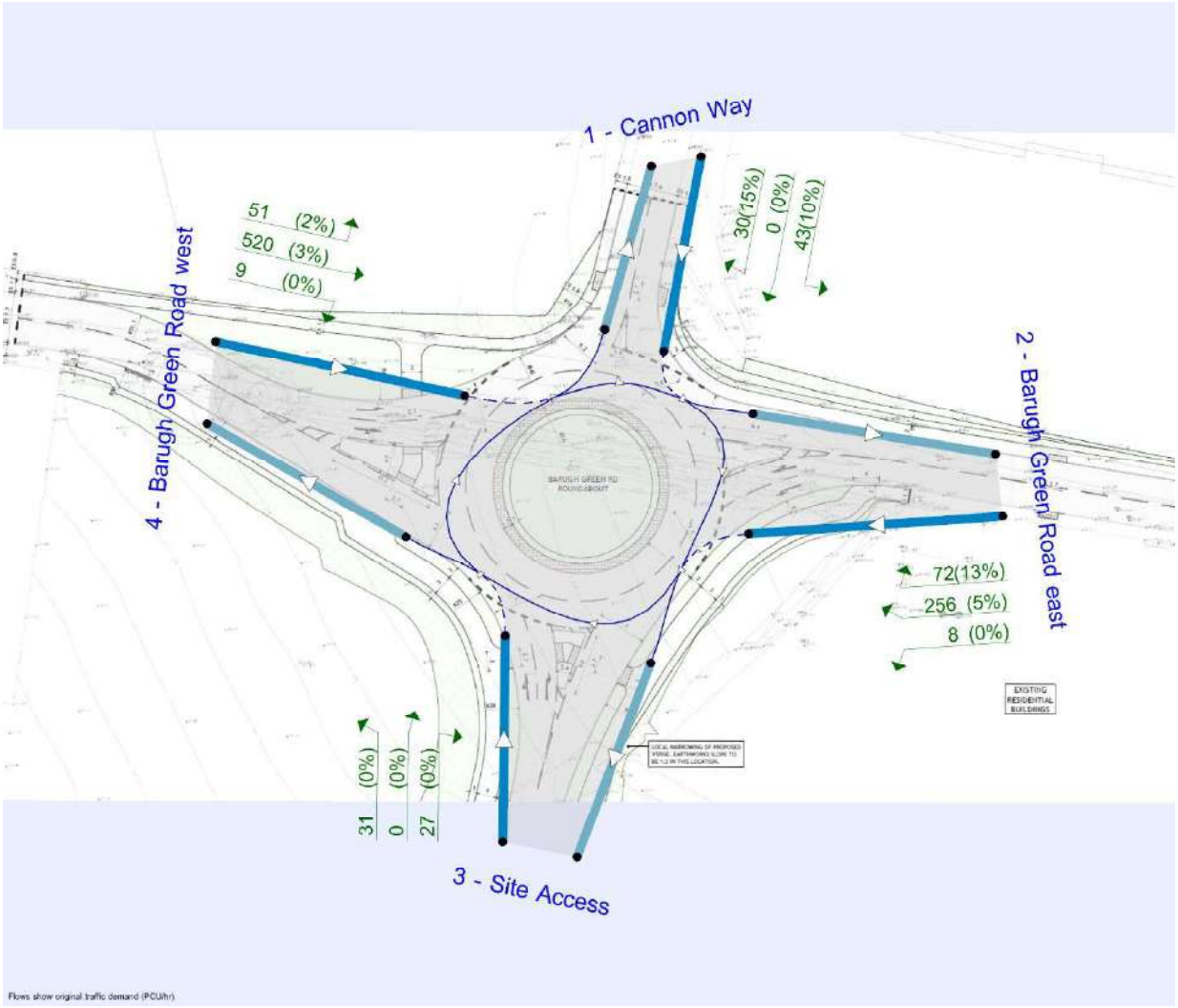
File summary

File Description

Title	Barugh Green Access
Location	
Site number	
Date	06/11/2023
Version	
Status	(new file)
Identifier	
Client	Strata Sterling Barnsley West Ltd
Jobnumber	
Enumerator	Fore Consulting Limited
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓
D3	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓
D4	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓
D5	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓
D7	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D8	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D9	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D10	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D11	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓
D12	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2026 Residential Phase 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.37	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Cannon Way		
2	Barugh Green Road east		
3	Site Access		
4	Barugh Green Road west		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Cannon Way	3.89	5.71	2.1	16.4	41.9	24.9		
2 - Barugh Green Road east	3.79	7.16	8.7	31.7	41.6	34.2		
3 - Site Access	3.66	6.94	10.8	28.2	41.6	30.6		
4 - Barugh Green Road west	4.16	7.29	11.9	29.5	41.6	32.1		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cannon Way	0.567	1334
2 - Barugh Green Road east	0.621	1611
3 - Site Access	0.628	1632
4 - Barugh Green Road west	0.659	1791

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	73	100.000
2 - Barugh Green Road east		ONE HOUR	✓	336	100.000
3 - Site Access		ONE HOUR	✓	58	100.000
4 - Barugh Green Road west		ONE HOUR	✓	580	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	43	0	30
	2 - Barugh Green Road east	72	0	8	256
	3 - Site Access	0	27	0	31
	4 - Barugh Green Road west	51	520	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	10	0	15
	2 - Barugh Green Road east	13	0	0	5
	3 - Site Access	0	0	0	0
	4 - Barugh Green Road west	2	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.08	4.45	0.1	A	67	100
2 - Barugh Green Road east	0.23	3.16	0.3	A	308	462
3 - Site Access	0.05	2.72	0.0	A	53	80
4 - Barugh Green Road west	0.37	3.42	0.6	A	532	798

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	55	14	417	1097	0.050	55	92	0.0	0.1	3.865	A
2 - Barugh Green Road east	253	63	29	1593	0.159	252	443	0.0	0.2	2.857	A
3 - Site Access	44	11	269	1463	0.030	44	13	0.0	0.0	2.535	A
4 - Barugh Green Road west	437	109	74	1742	0.251	435	238	0.0	0.3	2.830	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	66	16	499	1051	0.062	66	110	0.1	0.1	4.091	A
2 - Barugh Green Road east	302	76	35	1589	0.190	302	530	0.2	0.2	2.977	A
3 - Site Access	52	13	322	1430	0.036	52	15	0.0	0.0	2.612	A
4 - Barugh Green Road west	521	130	89	1733	0.301	521	285	0.3	0.4	3.056	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	80	20	612	987	0.081	80	135	0.1	0.1	4.444	A
2 - Barugh Green Road east	370	92	43	1585	0.233	370	649	0.2	0.3	3.155	A
3 - Site Access	64	16	394	1385	0.046	64	19	0.0	0.0	2.724	A
4 - Barugh Green Road west	639	160	109	1720	0.371	638	349	0.4	0.6	3.422	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	80	20	612	987	0.081	80	135	0.1	0.1	4.446	A
2 - Barugh Green Road east	370	92	43	1585	0.233	370	650	0.3	0.3	3.155	A
3 - Site Access	64	16	394	1384	0.046	64	19	0.0	0.0	2.725	A
4 - Barugh Green Road west	639	160	109	1720	0.371	639	349	0.6	0.6	3.424	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	66	16	500	1050	0.062	66	111	0.1	0.1	4.095	A
2 - Barugh Green Road east	302	76	35	1589	0.190	302	531	0.3	0.3	2.978	A
3 - Site Access	52	13	322	1430	0.036	52	15	0.0	0.0	2.614	A
4 - Barugh Green Road west	521	130	89	1733	0.301	522	285	0.6	0.4	3.059	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	55	14	419	1097	0.050	55	93	0.1	0.1	3.872	A
2 - Barugh Green Road east	253	63	29	1593	0.159	253	445	0.3	0.2	2.861	A
3 - Site Access	44	11	270	1463	0.030	44	13	0.0	0.0	2.536	A
4 - Barugh Green Road west	437	109	75	1742	0.251	437	239	0.4	0.3	2.839	A

2026 Residential Phase 1a, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.55	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	130	100.000
2 - Barugh Green Road east		ONE HOUR	✓	546	100.000
3 - Site Access		ONE HOUR	✓	35	100.000
4 - Barugh Green Road west		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	71	0	59
	2 - Barugh Green Road east	60	0	29	457
	3 - Site Access	0	16	0	19
	4 - Barugh Green Road west	32	383	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	3	0	2
	2 - Barugh Green Road east	5	0	0	3
	3 - Site Access	0	0	0	0
	4 - Barugh Green Road west	13	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.13	4.00	0.2	A	119	179
2 - Barugh Green Road east	0.39	3.91	0.7	A	501	752
3 - Site Access	0.03	3.01	0.0	A	32	48
4 - Barugh Green Road west	0.28	3.02	0.4	A	410	615

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	98	24	324	1151	0.085	97	69	0.0	0.1	3.505	A
2 - Barugh Green Road east	411	103	68	1569	0.262	410	353	0.0	0.4	3.196	A
3 - Site Access	26	7	432	1361	0.019	26	46	0.0	0.0	2.697	A
4 - Barugh Green Road west	337	84	57	1754	0.192	336	401	0.0	0.2	2.646	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	117	29	387	1115	0.105	117	83	0.1	0.1	3.699	A
2 - Barugh Green Road east	491	123	82	1560	0.315	490	422	0.4	0.5	3.464	A
3 - Site Access	31	8	517	1307	0.024	31	55	0.0	0.0	2.821	A
4 - Barugh Green Road west	402	100	68	1746	0.230	402	481	0.2	0.3	2.791	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	143	36	474	1065	0.134	143	101	0.1	0.2	4.003	A
2 - Barugh Green Road east	601	150	100	1549	0.388	600	517	0.5	0.6	3.909	A
3 - Site Access	39	10	633	1234	0.031	39	67	0.0	0.0	3.010	A
4 - Barugh Green Road west	492	123	84	1736	0.283	492	588	0.3	0.4	3.017	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	143	36	475	1065	0.134	143	101	0.2	0.2	4.003	A
2 - Barugh Green Road east	601	150	100	1549	0.388	601	517	0.6	0.7	3.913	A
3 - Site Access	39	10	634	1234	0.031	39	67	0.0	0.0	3.011	A
4 - Barugh Green Road west	492	123	84	1736	0.283	492	589	0.4	0.4	3.017	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	117	29	388	1114	0.105	117	83	0.2	0.1	3.701	A
2 - Barugh Green Road east	491	123	82	1560	0.315	492	423	0.7	0.5	3.472	A
3 - Site Access	31	8	519	1306	0.024	31	55	0.0	0.0	2.825	A
4 - Barugh Green Road west	402	100	68	1746	0.230	402	482	0.4	0.3	2.793	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	98	24	325	1150	0.085	98	69	0.1	0.1	3.511	A
2 - Barugh Green Road east	411	103	69	1569	0.262	411	354	0.5	0.4	3.206	A
3 - Site Access	26	7	434	1359	0.019	26	46	0.0	0.0	2.700	A
4 - Barugh Green Road west	337	84	57	1754	0.192	337	403	0.3	0.2	2.649	A

2033 Full Residential, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.31	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.31	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	78	100.000
2 - Barugh Green Road east		ONE HOUR	✓	576	100.000
3 - Site Access		ONE HOUR	✓	565	100.000
4 - Barugh Green Road west		ONE HOUR	✓	736	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	46	0	32
	2 - Barugh Green Road east	76	0	237	263
	3 - Site Access	0	455	0	110
	4 - Barugh Green Road west	54	561	121	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	10	0	15
	2 - Barugh Green Road east	13	0	1	6
	3 - Site Access	0	1	0	4
	4 - Barugh Green Road west	2	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.14	7.48	0.2	A	72	107
2 - Barugh Green Road east	0.42	4.32	0.8	A	529	793
3 - Site Access	0.45	4.85	0.8	A	518	778
4 - Barugh Green Road west	0.58	6.21	1.4	A	675	1013

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	59	15	853	851	0.069	58	97	0.0	0.1	5.085	A
2 - Barugh Green Road east	434	108	115	1540	0.282	432	796	0.0	0.4	3.398	A
3 - Site Access	425	106	278	1457	0.292	424	268	0.0	0.4	3.531	A
4 - Barugh Green Road west	554	139	398	1529	0.362	552	304	0.0	0.6	3.775	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	70	18	1021	756	0.093	70	117	0.1	0.1	5.881	A
2 - Barugh Green Road east	518	129	137	1526	0.339	517	953	0.4	0.5	3.735	A
3 - Site Access	508	127	333	1423	0.357	507	321	0.4	0.6	3.991	A
4 - Barugh Green Road west	662	165	477	1477	0.448	661	364	0.6	0.8	4.524	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	86	21	1249	626	0.137	86	143	0.1	0.2	7.454	A
2 - Barugh Green Road east	634	159	168	1507	0.421	633	1167	0.5	0.8	4.311	A
3 - Site Access	622	156	408	1376	0.452	621	393	0.6	0.8	4.837	A
4 - Barugh Green Road west	810	203	584	1407	0.576	808	445	0.8	1.4	6.156	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	86	21	1252	625	0.137	86	143	0.2	0.2	7.483	A
2 - Barugh Green Road east	634	159	168	1507	0.421	634	1169	0.8	0.8	4.321	A
3 - Site Access	622	156	408	1376	0.452	622	394	0.8	0.8	4.852	A
4 - Barugh Green Road west	810	203	585	1406	0.576	810	446	1.4	1.4	6.206	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	70	18	1025	753	0.093	70	117	0.2	0.1	5.909	A
2 - Barugh Green Road east	518	129	138	1525	0.339	519	957	0.8	0.5	3.746	A
3 - Site Access	508	127	334	1422	0.357	509	323	0.8	0.6	4.010	A
4 - Barugh Green Road west	662	165	478	1476	0.448	664	365	1.4	0.8	4.566	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	59	15	857	848	0.069	59	98	0.1	0.1	5.110	A
2 - Barugh Green Road east	434	108	115	1540	0.282	434	801	0.5	0.4	3.411	A
3 - Site Access	425	106	280	1456	0.292	426	270	0.6	0.4	3.549	A
4 - Barugh Green Road west	554	139	400	1528	0.363	555	305	0.8	0.6	3.806	A

2033 Full Residential, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.27	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	138	100.000
2 - Barugh Green Road east		ONE HOUR	✓	1096	100.000
3 - Site Access		ONE HOUR	✓	361	100.000
4 - Barugh Green Road west		ONE HOUR	✓	602	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	76	0	62
	2 - Barugh Green Road east	63	0	649	384
	3 - Site Access	0	291	0	70
	4 - Barugh Green Road west	34	412	156	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	3	0	2
	2 - Barugh Green Road east	5	0	0	3
	3 - Site Access	0	1	0	3
	4 - Barugh Green Road west	13	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.19	5.71	0.2	A	127	190
2 - Barugh Green Road east	0.83	14.14	4.6	B	1006	1509
3 - Site Access	0.31	4.13	0.5	A	331	497
4 - Barugh Green Road west	0.43	4.28	0.8	A	552	829

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	104	26	644	969	0.107	103	73	0.0	0.1	4.264	A
2 - Barugh Green Road east	825	206	163	1510	0.547	820	584	0.0	1.2	5.254	A
3 - Site Access	272	68	381	1393	0.195	271	603	0.0	0.2	3.250	A
4 - Barugh Green Road west	453	113	265	1617	0.280	452	386	0.0	0.4	3.199	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	124	31	771	897	0.138	124	87	0.1	0.2	4.775	A
2 - Barugh Green Road east	985	246	196	1490	0.661	982	700	1.2	1.9	7.149	A
3 - Site Access	325	81	456	1345	0.241	324	722	0.2	0.3	3.574	A
4 - Barugh Green Road west	541	135	318	1582	0.342	541	463	0.4	0.5	3.581	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	152	38	944	799	0.190	152	106	0.2	0.2	5.702	A
2 - Barugh Green Road east	1207	302	240	1462	0.825	1197	856	1.9	4.4	13.258	B
3 - Site Access	397	99	556	1283	0.310	397	880	0.3	0.5	4.117	A
4 - Barugh Green Road west	663	166	389	1535	0.432	662	564	0.5	0.8	4.268	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	152	38	946	798	0.190	152	107	0.2	0.2	5.713	A
2 - Barugh Green Road east	1207	302	240	1462	0.825	1206	858	4.4	4.6	14.143	B
3 - Site Access	397	99	560	1280	0.310	397	886	0.5	0.5	4.134	A
4 - Barugh Green Road west	663	166	390	1535	0.432	663	568	0.8	0.8	4.280	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	124	31	774	896	0.139	124	88	0.2	0.2	4.789	A
2 - Barugh Green Road east	985	246	196	1489	0.662	996	702	4.6	2.0	7.536	A
3 - Site Access	325	81	462	1342	0.242	325	730	0.5	0.3	3.590	A
4 - Barugh Green Road west	541	135	319	1581	0.342	542	468	0.8	0.5	3.594	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	104	26	647	967	0.107	104	73	0.2	0.1	4.278	A
2 - Barugh Green Road east	825	206	164	1509	0.547	828	587	2.0	1.2	5.381	A
3 - Site Access	272	68	385	1391	0.195	272	608	0.3	0.2	3.265	A
4 - Barugh Green Road west	453	113	267	1616	0.281	454	390	0.5	0.4	3.213	A

2026 Employment , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.48	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.48	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Am	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	73	100.000
2 - Barugh Green Road east		ONE HOUR	✓	383	100.000
3 - Site Access		ONE HOUR	✓	0	100.000
4 - Barugh Green Road west		ONE HOUR	✓	598	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	43	0	30
	2 - Barugh Green Road east	72	0	0	311
	3 - Site Access	0	0	0	0
	4 - Barugh Green Road west	51	547	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	10	0	15
	2 - Barugh Green Road east	13	0	0	7
	3 - Site Access	0	0	0	0
	4 - Barugh Green Road west	2	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.08	4.42	0.1	A	67	100
2 - Barugh Green Road east	0.27	3.33	0.4	A	351	527
3 - Site Access	0.00	0.00	0.0	A	0	0
4 - Barugh Green Road west	0.38	3.46	0.6	A	549	823

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	55	14	411	1101	0.050	55	92	0.0	0.1	3.851	A
2 - Barugh Green Road east	288	72	22	1597	0.181	287	443	0.0	0.2	2.969	A
3 - Site Access	0	0	310	1437	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	450	113	54	1756	0.256	449	256	0.0	0.4	2.857	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	66	16	491	1056	0.062	66	110	0.1	0.1	4.072	A
2 - Barugh Green Road east	344	86	27	1594	0.216	344	530	0.2	0.3	3.111	A
3 - Site Access	0	0	371	1399	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	538	134	65	1749	0.307	537	306	0.4	0.5	3.085	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	80	20	602	993	0.081	80	135	0.1	0.1	4.417	A
2 - Barugh Green Road east	422	105	33	1591	0.265	421	649	0.3	0.4	3.327	A
3 - Site Access	0	0	454	1347	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	658	165	79	1739	0.379	658	375	0.5	0.6	3.454	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	80	20	602	993	0.081	80	135	0.1	0.1	4.419	A
2 - Barugh Green Road east	422	105	33	1591	0.265	422	650	0.4	0.4	3.327	A
3 - Site Access	0	0	455	1346	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	658	165	79	1739	0.379	658	375	0.6	0.6	3.457	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	66	16	492	1055	0.062	66	111	0.1	0.1	4.076	A
2 - Barugh Green Road east	344	86	27	1594	0.216	345	531	0.4	0.3	3.113	A
3 - Site Access	0	0	372	1399	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	538	134	65	1749	0.307	538	307	0.6	0.5	3.091	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	55	14	412	1100	0.050	55	93	0.1	0.1	3.858	A
2 - Barugh Green Road east	288	72	23	1597	0.181	289	445	0.3	0.2	2.973	A
3 - Site Access	0	0	311	1437	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	450	113	54	1756	0.256	451	257	0.5	0.4	2.864	A

2026 Employment , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.54	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	130	100.000
2 - Barugh Green Road east		ONE HOUR	✓	539	100.000
3 - Site Access		ONE HOUR	✓	0	100.000
4 - Barugh Green Road west		ONE HOUR	✓	461	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	71	0	59
	2 - Barugh Green Road east	60	0	0	479
	3 - Site Access	0	0	0	0
	4 - Barugh Green Road west	32	429	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	3	0	2
	2 - Barugh Green Road east	5	0	0	4
	3 - Site Access	0	0	0	0
	4 - Barugh Green Road west	13	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.13	4.00	0.2	A	119	179
2 - Barugh Green Road east	0.38	3.83	0.6	A	495	742
3 - Site Access	0.00	0.00	0.0	A	0	0
4 - Barugh Green Road west	0.29	3.06	0.4	A	423	635

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	98	24	322	1151	0.085	97	69	0.0	0.1	3.502	A
2 - Barugh Green Road east	406	101	44	1584	0.256	404	375	0.0	0.4	3.173	A
3 - Site Access	0	0	449	1350	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	347	87	45	1762	0.197	346	404	0.0	0.3	2.682	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	117	29	385	1116	0.105	117	83	0.1	0.1	3.695	A
2 - Barugh Green Road east	485	121	53	1578	0.307	484	449	0.4	0.5	3.425	A
3 - Site Access	0	0	537	1295	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	414	104	54	1756	0.236	414	483	0.3	0.3	2.831	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	143	36	472	1067	0.134	143	101	0.1	0.2	3.997	A
2 - Barugh Green Road east	593	148	65	1571	0.378	593	550	0.5	0.6	3.830	A
3 - Site Access	0	0	658	1219	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	508	127	66	1748	0.290	507	592	0.3	0.4	3.061	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	143	36	472	1066	0.134	143	101	0.2	0.2	3.998	A
2 - Barugh Green Road east	593	148	65	1571	0.378	593	551	0.6	0.6	3.833	A
3 - Site Access	0	0	658	1219	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	508	127	66	1748	0.290	508	592	0.4	0.4	3.062	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	117	29	386	1115	0.105	117	83	0.2	0.1	3.697	A
2 - Barugh Green Road east	485	121	53	1578	0.307	485	450	0.6	0.5	3.433	A
3 - Site Access	0	0	538	1294	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	414	104	54	1756	0.236	415	484	0.4	0.3	2.833	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	98	24	323	1151	0.085	98	69	0.1	0.1	3.508	A
2 - Barugh Green Road east	406	101	44	1584	0.256	406	377	0.5	0.4	3.186	A
3 - Site Access	0	0	451	1349	0.000	0	0	0.0	0.0	0.000	A
4 - Barugh Green Road west	347	87	45	1762	0.197	347	405	0.3	0.3	2.688	A

2026 Phase 1 (Without Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.51	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	73	100.000
2 - Barugh Green Road east		ONE HOUR	✓	391	100.000
3 - Site Access		ONE HOUR	✓	58	100.000
4 - Barugh Green Road west		ONE HOUR	✓	607	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	43	0	30
	2 - Barugh Green Road east	72	0	8	311
	3 - Site Access	0	27	0	31
	4 - Barugh Green Road west	51	547	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	10	0	15
	2 - Barugh Green Road east	13	0	0	7
	3 - Site Access	0	0	0	0
	4 - Barugh Green Road west	2	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.08	4.53	0.1	A	67	100
2 - Barugh Green Road east	0.27	3.36	0.4	A	359	538
3 - Site Access	0.05	2.81	0.0	A	53	80
4 - Barugh Green Road west	0.39	3.55	0.7	A	557	835

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	55	14	438	1086	0.051	55	92	0.0	0.1	3.908	A
2 - Barugh Green Road east	294	74	29	1593	0.185	293	463	0.0	0.2	2.988	A
3 - Site Access	44	11	310	1437	0.030	44	13	0.0	0.0	2.582	A
4 - Barugh Green Road west	457	114	74	1742	0.262	456	279	0.0	0.4	2.900	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	66	16	524	1037	0.063	66	110	0.1	0.1	4.149	A
2 - Barugh Green Road east	352	88	35	1589	0.221	351	554	0.2	0.3	3.137	A
3 - Site Access	52	13	371	1399	0.037	52	15	0.0	0.0	2.672	A
4 - Barugh Green Road west	546	136	89	1733	0.315	545	334	0.4	0.5	3.146	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	80	20	641	971	0.083	80	135	0.1	0.1	4.528	A
2 - Barugh Green Road east	430	108	43	1585	0.272	430	679	0.3	0.4	3.365	A
3 - Site Access	64	16	454	1347	0.047	64	19	0.0	0.0	2.805	A
4 - Barugh Green Road west	668	167	109	1720	0.389	668	409	0.5	0.7	3.549	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	80	20	642	970	0.083	80	135	0.1	0.1	4.530	A
2 - Barugh Green Road east	430	108	43	1585	0.272	430	679	0.4	0.4	3.365	A
3 - Site Access	64	16	455	1346	0.047	64	19	0.0	0.0	2.806	A
4 - Barugh Green Road west	668	167	109	1720	0.389	668	410	0.7	0.7	3.552	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	66	16	525	1037	0.063	66	111	0.1	0.1	4.153	A
2 - Barugh Green Road east	352	88	35	1589	0.221	352	555	0.4	0.3	3.139	A
3 - Site Access	52	13	372	1399	0.037	52	15	0.0	0.0	2.673	A
4 - Barugh Green Road west	546	136	89	1733	0.315	546	335	0.7	0.5	3.150	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	55	14	439	1085	0.051	55	93	0.1	0.1	3.916	A
2 - Barugh Green Road east	294	74	29	1593	0.185	295	465	0.3	0.2	2.994	A
3 - Site Access	44	11	311	1437	0.030	44	13	0.0	0.0	2.584	A
4 - Barugh Green Road west	457	114	75	1742	0.262	457	280	0.5	0.4	2.910	A

2026 Phase 1 (Without Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.68	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	130	100.000
2 - Barugh Green Road east		ONE HOUR	✓	568	100.000
3 - Site Access		ONE HOUR	✓	35	100.000
4 - Barugh Green Road west		ONE HOUR	✓	493	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	71	0	59
	2 - Barugh Green Road east	60	0	29	479
	3 - Site Access	0	16	0	19
	4 - Barugh Green Road west	32	429	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	3	0	2
	2 - Barugh Green Road east	5	0	0	4
	3 - Site Access	0	0	0	0
	4 - Barugh Green Road west	13	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.14	4.13	0.2	A	119	179
2 - Barugh Green Road east	0.40	4.05	0.7	A	521	782
3 - Site Access	0.03	3.05	0.0	A	32	48
4 - Barugh Green Road west	0.31	3.17	0.5	A	452	679

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	98	24	358	1131	0.087	97	69	0.0	0.1	3.572	A
2 - Barugh Green Road east	428	107	68	1569	0.273	426	387	0.0	0.4	3.268	A
3 - Site Access	26	7	449	1350	0.020	26	46	0.0	0.0	2.718	A
4 - Barugh Green Road west	371	93	57	1754	0.212	370	418	0.0	0.3	2.732	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	117	29	429	1091	0.107	117	83	0.1	0.1	3.788	A
2 - Barugh Green Road east	511	128	82	1560	0.327	510	464	0.4	0.5	3.559	A
3 - Site Access	31	8	537	1295	0.024	31	55	0.0	0.0	2.849	A
4 - Barugh Green Road west	443	111	68	1746	0.254	443	500	0.3	0.4	2.903	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	143	36	525	1037	0.138	143	101	0.1	0.2	4.131	A
2 - Barugh Green Road east	625	156	100	1549	0.404	625	568	0.5	0.7	4.042	A
3 - Site Access	39	10	658	1219	0.032	39	67	0.0	0.0	3.048	A
4 - Barugh Green Road west	543	136	84	1736	0.313	542	613	0.4	0.5	3.168	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	143	36	525	1036	0.138	143	101	0.2	0.2	4.132	A
2 - Barugh Green Road east	625	156	100	1549	0.404	625	568	0.7	0.7	4.049	A
3 - Site Access	39	10	658	1219	0.032	39	67	0.0	0.0	3.050	A
4 - Barugh Green Road west	543	136	84	1736	0.313	543	613	0.5	0.5	3.170	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	117	29	429	1091	0.107	117	83	0.2	0.1	3.791	A
2 - Barugh Green Road east	511	128	82	1560	0.327	511	464	0.7	0.5	3.567	A
3 - Site Access	31	8	538	1294	0.024	31	55	0.0	0.0	2.853	A
4 - Barugh Green Road west	443	111	68	1746	0.254	444	501	0.5	0.4	2.908	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	98	24	359	1130	0.087	98	69	0.1	0.1	3.575	A
2 - Barugh Green Road east	428	107	69	1569	0.273	428	389	0.5	0.4	3.282	A
3 - Site Access	26	7	451	1349	0.020	26	46	0.0	0.0	2.723	A
4 - Barugh Green Road west	371	93	57	1754	0.212	371	420	0.4	0.3	2.740	A

2026 Phase 1 (With Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.97	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	73	100.000
2 - Barugh Green Road east		ONE HOUR	✓	575	100.000
3 - Site Access		ONE HOUR	✓	465	100.000
4 - Barugh Green Road west		ONE HOUR	✓	741	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	43	0	30
	2 - Barugh Green Road east	72	0	257	246
	3 - Site Access	0	357	0	108
	4 - Barugh Green Road west	51	529	161	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	10	0	15
	2 - Barugh Green Road east	13	0	4	6
	3 - Site Access	0	3	0	11
	4 - Barugh Green Road west	2	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.12	6.71	0.1	A	67	100
2 - Barugh Green Road east	0.43	4.50	0.8	A	528	791
3 - Site Access	0.37	4.29	0.6	A	427	640
4 - Barugh Green Road west	0.55	5.60	1.3	A	680	1020

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	55	14	785	889	0.062	55	92	0.0	0.1	4.831	A
2 - Barugh Green Road east	433	108	143	1522	0.284	431	697	0.0	0.4	3.490	A
3 - Site Access	350	88	261	1468	0.238	349	313	0.0	0.3	3.366	A
4 - Barugh Green Road west	558	139	322	1579	0.353	556	288	0.0	0.6	3.627	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	66	16	940	801	0.082	66	110	0.1	0.1	5.480	A
2 - Barugh Green Road east	517	129	171	1505	0.344	516	834	0.4	0.6	3.856	A
3 - Site Access	418	105	313	1436	0.291	418	375	0.3	0.4	3.701	A
4 - Barugh Green Road west	666	167	385	1538	0.433	665	345	0.6	0.8	4.260	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	80	20	1150	682	0.118	80	135	0.1	0.1	6.698	A
2 - Barugh Green Road east	633	158	210	1481	0.428	632	1021	0.6	0.8	4.488	A
3 - Site Access	512	128	383	1392	0.368	511	459	0.4	0.6	4.279	A
4 - Barugh Green Road west	816	204	472	1481	0.551	814	422	0.8	1.3	5.565	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	80	20	1153	681	0.118	80	135	0.1	0.1	6.714	A
2 - Barugh Green Road east	633	158	210	1481	0.428	633	1023	0.8	0.8	4.498	A
3 - Site Access	512	128	383	1391	0.368	512	460	0.6	0.6	4.287	A
4 - Barugh Green Road west	816	204	472	1480	0.551	816	423	1.3	1.3	5.599	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	66	16	943	799	0.082	66	111	0.1	0.1	5.500	A
2 - Barugh Green Road east	517	129	172	1504	0.344	518	837	0.8	0.6	3.868	A
3 - Site Access	418	105	313	1435	0.291	419	377	0.6	0.4	3.711	A
4 - Barugh Green Road west	666	167	386	1537	0.433	668	346	1.3	0.8	4.292	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	55	14	789	887	0.062	55	93	0.1	0.1	4.848	A
2 - Barugh Green Road east	433	108	144	1522	0.284	433	700	0.6	0.4	3.504	A
3 - Site Access	350	88	262	1467	0.239	350	315	0.4	0.3	3.379	A
4 - Barugh Green Road west	558	139	323	1578	0.353	559	289	0.8	0.6	3.654	A

2026 Phase 1 (With Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.36	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	130	100.000
2 - Barugh Green Road east		ONE HOUR	✓	953	100.000
3 - Site Access		ONE HOUR	✓	355	100.000
4 - Barugh Green Road west		ONE HOUR	✓	568	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	71	0	59
	2 - Barugh Green Road east	60	0	538	355
	3 - Site Access	0	262	0	93
	4 - Barugh Green Road west	32	387	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	3	0	2
	2 - Barugh Green Road east	5	0	1	3
	3 - Site Access	0	3	0	7
	4 - Barugh Green Road west	13	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.17	5.33	0.2	A	119	179
2 - Barugh Green Road east	0.71	8.74	2.5	A	874	1312
3 - Site Access	0.30	4.10	0.4	A	326	489
4 - Barugh Green Road west	0.40	4.03	0.7	A	521	782

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	98	24	599	995	0.098	97	69	0.0	0.1	4.112	A
2 - Barugh Green Road east	717	179	156	1514	0.474	714	540	0.0	0.9	4.567	A
3 - Site Access	267	67	355	1409	0.190	266	515	0.0	0.2	3.273	A
4 - Barugh Green Road west	428	107	241	1632	0.262	426	380	0.0	0.4	3.113	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	117	29	717	928	0.126	117	83	0.1	0.1	4.551	A
2 - Barugh Green Road east	857	214	187	1495	0.573	855	647	0.9	1.3	5.718	A
3 - Site Access	319	80	425	1365	0.234	319	616	0.2	0.3	3.579	A
4 - Barugh Green Road west	511	128	289	1601	0.319	510	455	0.4	0.5	3.445	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	143	36	877	837	0.171	143	101	0.1	0.2	5.319	A
2 - Barugh Green Road east	1049	262	229	1469	0.714	1045	792	1.3	2.5	8.560	A
3 - Site Access	391	98	520	1306	0.299	390	754	0.3	0.4	4.090	A
4 - Barugh Green Road west	625	156	354	1558	0.401	625	556	0.5	0.7	4.024	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	143	36	879	836	0.171	143	101	0.2	0.2	5.326	A
2 - Barugh Green Road east	1049	262	229	1469	0.714	1049	793	2.5	2.5	8.735	A
3 - Site Access	391	98	522	1304	0.300	391	756	0.4	0.4	4.099	A
4 - Barugh Green Road west	625	156	355	1558	0.401	625	558	0.7	0.7	4.032	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	117	29	719	927	0.126	117	83	0.2	0.1	4.562	A
2 - Barugh Green Road east	857	214	187	1495	0.573	861	648	2.5	1.4	5.835	A
3 - Site Access	319	80	428	1363	0.234	320	620	0.4	0.3	3.592	A
4 - Barugh Green Road west	511	128	290	1600	0.319	511	458	0.7	0.5	3.458	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	98	24	601	993	0.099	98	69	0.1	0.1	4.124	A
2 - Barugh Green Road east	717	179	157	1514	0.474	719	543	1.4	0.9	4.631	A
3 - Site Access	267	67	358	1407	0.190	268	518	0.3	0.2	3.287	A
4 - Barugh Green Road west	428	107	243	1631	0.262	428	383	0.5	0.4	3.128	A

2033 Full Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.94	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	78	100.000
2 - Barugh Green Road east		ONE HOUR	✓	631	100.000
3 - Site Access		ONE HOUR	✓	614	100.000
4 - Barugh Green Road west		ONE HOUR	✓	782	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	46	0	32
	2 - Barugh Green Road east	76	0	292	263
	3 - Site Access	0	482	0	132
	4 - Barugh Green Road west	54	561	167	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	10	0	15
	2 - Barugh Green Road east	13	0	3	6
	3 - Site Access	0	2	0	9
	4 - Barugh Green Road west	2	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.15	8.17	0.2	A	72	107
2 - Barugh Green Road east	0.47	4.86	0.9	A	579	869
3 - Site Access	0.49	5.32	1.0	A	563	845
4 - Barugh Green Road west	0.62	7.07	1.7	A	718	1076

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	59	15	907	820	0.072	58	97	0.0	0.1	5.291	A
2 - Barugh Green Road east	475	119	149	1519	0.313	473	816	0.0	0.5	3.622	A
3 - Site Access	462	116	278	1457	0.317	460	344	0.0	0.5	3.729	A
4 - Barugh Green Road west	589	147	418	1516	0.388	586	320	0.0	0.7	3.990	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	70	18	1086	719	0.098	70	117	0.1	0.1	6.215	A
2 - Barugh Green Road east	567	142	179	1500	0.378	567	978	0.5	0.6	4.060	A
3 - Site Access	552	138	333	1423	0.388	551	412	0.5	0.7	4.268	A
4 - Barugh Green Road west	703	176	501	1461	0.481	702	383	0.7	0.9	4.890	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	86	21	1329	581	0.148	86	143	0.1	0.2	8.133	A
2 - Barugh Green Road east	695	174	218	1476	0.471	694	1196	0.6	0.9	4.844	A
3 - Site Access	676	169	408	1376	0.491	675	504	0.7	1.0	5.300	A
4 - Barugh Green Road west	861	215	613	1388	0.621	858	469	0.9	1.7	6.990	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	86	21	1332	579	0.148	86	143	0.2	0.2	8.174	A
2 - Barugh Green Road east	695	174	219	1475	0.471	695	1199	0.9	0.9	4.860	A
3 - Site Access	676	169	408	1376	0.491	676	505	1.0	1.0	5.322	A
4 - Barugh Green Road west	861	215	614	1387	0.621	861	470	1.7	1.7	7.072	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	70	18	1091	715	0.098	70	117	0.2	0.1	6.254	A
2 - Barugh Green Road east	567	142	180	1500	0.378	568	982	0.9	0.6	4.079	A
3 - Site Access	552	138	334	1422	0.388	553	414	1.0	0.7	4.291	A
4 - Barugh Green Road west	703	176	503	1460	0.481	706	385	1.7	1.0	4.951	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	59	15	913	817	0.072	59	98	0.1	0.1	5.320	A
2 - Barugh Green Road east	475	119	150	1518	0.313	476	821	0.6	0.5	3.640	A
3 - Site Access	462	116	280	1456	0.317	463	346	0.7	0.5	3.752	A
4 - Barugh Green Road west	589	147	421	1514	0.389	590	322	1.0	0.7	4.030	A

2033 Full Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.42	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.42	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cannon Way		ONE HOUR	✓	138	100.000
2 - Barugh Green Road east		ONE HOUR	✓	1118	100.000
3 - Site Access		ONE HOUR	✓	445	100.000
4 - Barugh Green Road west		ONE HOUR	✓	620	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	76	0	62
	2 - Barugh Green Road east	63	0	671	384
	3 - Site Access	0	337	0	108
	4 - Barugh Green Road west	34	412	174	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Cannon Way	2 - Barugh Green Road east	3 - Site Access	4 - Barugh Green Road west
From	1 - Cannon Way	0	3	0	2
	2 - Barugh Green Road east	5	0	1	3
	3 - Site Access	0	2	0	6
	4 - Barugh Green Road west	13	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cannon Way	0.20	6.09	0.3	A	127	190
2 - Barugh Green Road east	0.85	16.48	5.4	C	1026	1539
3 - Site Access	0.38	4.69	0.6	A	408	613
4 - Barugh Green Road west	0.45	4.58	0.9	A	569	853

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	104	26	692	942	0.110	103	73	0.0	0.1	4.401	A
2 - Barugh Green Road east	842	210	177	1501	0.561	837	619	0.0	1.3	5.478	A
3 - Site Access	335	84	381	1393	0.241	334	633	0.0	0.3	3.494	A
4 - Barugh Green Road west	467	117	300	1594	0.293	465	415	0.0	0.4	3.318	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	124	31	829	864	0.144	124	87	0.1	0.2	4.984	A
2 - Barugh Green Road east	1005	251	212	1480	0.679	1002	741	1.3	2.1	7.625	A
3 - Site Access	400	100	456	1346	0.297	400	757	0.3	0.4	3.916	A
4 - Barugh Green Road west	557	139	359	1555	0.358	557	497	0.4	0.6	3.755	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	152	38	1015	759	0.200	152	106	0.2	0.3	6.075	A
2 - Barugh Green Road east	1231	308	259	1450	0.849	1219	907	2.1	5.2	15.106	C
3 - Site Access	490	122	555	1283	0.382	489	923	0.4	0.6	4.662	A
4 - Barugh Green Road west	683	171	439	1502	0.454	682	605	0.6	0.9	4.563	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	152	38	1016	758	0.200	152	107	0.3	0.3	6.089	A
2 - Barugh Green Road east	1231	308	260	1450	0.849	1230	908	5.2	5.4	16.485	C
3 - Site Access	490	122	560	1280	0.383	490	930	0.6	0.6	4.688	A
4 - Barugh Green Road west	683	171	440	1501	0.455	683	610	0.9	0.9	4.580	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	124	31	831	863	0.144	124	88	0.3	0.2	5.001	A
2 - Barugh Green Road east	1005	251	213	1479	0.680	1018	743	5.4	2.2	8.163	A
3 - Site Access	400	100	463	1341	0.298	401	768	0.6	0.4	3.944	A
4 - Barugh Green Road west	557	139	361	1554	0.359	558	503	0.9	0.6	3.774	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cannon Way	104	26	696	940	0.111	104	73	0.2	0.1	4.418	A
2 - Barugh Green Road east	842	210	178	1501	0.561	845	622	2.2	1.3	5.626	A
3 - Site Access	335	84	385	1390	0.241	335	638	0.4	0.3	3.513	A
4 - Barugh Green Road west	467	117	302	1593	0.293	467	419	0.6	0.4	3.336	A

Appendix J-2

Junctions 10 Output – Higham Common Road Site Access Roundabout

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: 2023-11-03_Proposed Higham Road Roundabout.j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Proposed Higham Road Roundabout
Report generation date: 09/11/2023 11:04:21

»2026 Residential Phase 1a, AM
»2026 Residential Phase 1a, PM
»2033 Full Residential, AM
»2033 Full Residential, PM
»2026 Employment, AM
»2026 Employment, PM
»2026 Phase 1 (Without Link Road), AM
»2026 Phase 1 (Without Link Road), PM
»2026 Phase 1 (With Link Road), AM
»2026 Phase 1 (With Link Road), PM
»2033 Full Development, AM
»2033 Full Development, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2026 Residential Phase 1a					
1 - Higham Common Road north	0.2	1.92	0.15	0.4	2.18	0.27
2 - Site Access north	0.0	0.00	0.00	0.0	0.00	0.00
3 - Site Access south	0.0	0.00	0.00	0.0	0.00	0.00
4 - Higham Common Road south	0.3	2.29	0.24	0.3	2.21	0.21
5 - Residential Access	0.0	0.00	0.00	0.0	0.00	0.00
	2033 Full Residential					
1 - Higham Common Road north	0.1	2.10	0.06	0.1	2.01	0.07
2 - Site Access north	0.5	2.97	0.31	0.8	3.70	0.45
3 - Site Access south	0.0	0.00	0.00	0.0	0.00	0.00
4 - Higham Common Road south	0.4	2.40	0.27	0.6	2.68	0.36
5 - Residential Access	0.0	0.00	0.00	0.0	0.00	0.00
	2026 Employment					
1 - Higham Common Road north	0.3	2.19	0.20	0.4	2.33	0.29
2 - Site Access north	0.0	0.00	0.00	0.0	0.00	0.00
3 - Site Access south	0.1	2.08	0.05	0.1	1.91	0.09
4 - Higham Common Road south	0.5	2.61	0.31	0.3	2.40	0.23
5 - Residential Access	0.0	0.00	0.00	0.0	0.00	0.00
	2026 Phase 1 (Without Link Road)					
1 - Higham Common Road north	0.3	2.20	0.21	0.4	2.35	0.30
2 - Site Access north	0.0	0.00	0.00	0.0	0.00	0.00
3 - Site Access south	0.1	2.10	0.05	0.1	1.92	0.09
4 - Higham Common Road south	0.5	2.63	0.31	0.3	2.44	0.25
5 - Residential Access	0.0	0.00	0.00	0.0	0.00	0.00
	2026 Phase 1 (With Link Road)					
1 - Higham Common Road north	0.1	2.20	0.05	0.0	1.96	0.04
2 - Site Access north	0.4	3.02	0.27	0.7	3.54	0.41
3 - Site Access south	0.1	2.17	0.05	0.1	2.03	0.09
4 - Higham Common Road south	0.5	2.60	0.31	0.4	2.58	0.29
5 - Residential Access	0.0	0.00	0.00	0.0	0.00	0.00
	2033 Full Development					
1 - Higham Common Road north	0.1	2.25	0.07	0.1	2.13	0.08
2 - Site Access north	0.7	3.60	0.39	1.0	4.08	0.49
3 - Site Access south	0.1	2.33	0.05	0.1	2.16	0.10
4 - Higham Common Road south	0.6	2.77	0.35	0.7	2.98	0.39
5 - Residential Access	0.0	0.00	0.00	0.0	0.00	0.00

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

File summary

File Description

Title	Higham Common Road Access
Location	
Site number	
Date	06/11/2023
Version	
Status	(new file)
Identifier	
Client	Strata Sterling Barnsley West Ltd
Jobnumber	3062
Enumerator	Fore Consulting Limited
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓
D3	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓
D4	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓
D5	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓
D7	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D8	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D9	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D10	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D11	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓
D12	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2026 Residential Phase 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.14	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.14	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Higham Common Road north		
2	Site Access north		
3	Site Access south		
4	Higham Common Road south		
5	Residential Access		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Higham Common Road north	5.53	7.57	15.8	20.0	64.0	7.4		
2 - Site Access north	3.79	8.55	9.3	30.0	63.9	9.4		
3 - Site Access south	7.22	9.09	10.3	25.0	64.0	7.1		
4 - Higham Common Road south	4.73	8.44	14.5	20.0	64.0	17.9		
5 - Residential Access	4.74	4.75	0.0	9.0	64.0	21.4		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Higham Common Road north	0.651	2278
2 - Site Access north	0.581	1843
3 - Site Access south	0.736	2773
4 - Higham Common Road south	0.618	2138
5 - Residential Access	0.476	1394

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	313	100.000
2 - Site Access north		ONE HOUR	✓	0	100.000
3 - Site Access south		ONE HOUR	✓	0	100.000
4 - Higham Common Road south		ONE HOUR	✓	473	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	313	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	0	0	0	0	0
	4 - Higham Common Road south	473	0	0	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	3	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	0	0	0	0	0
	4 - Higham Common Road south	3	0	0	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.15	1.92	0.2	A	287	431
2 - Site Access north	0.00	0.00	0.0	A	0	0
3 - Site Access south	0.00	0.00	0.0	A	0	0
4 - Higham Common Road south	0.24	2.29	0.3	A	434	651
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	236	59	0	2278	0.103	235	355	0.0	0.1	1.814	A
2 - Site Access north	0	0	235	1706	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	235	2599	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	356	89	0	2138	0.167	355	235	0.0	0.2	2.078	A
5 - Residential Access	0	0	355	1224	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	281	70	0	2278	0.124	281	425	0.1	0.1	1.856	A
2 - Site Access north	0	0	281	1679	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	281	2566	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	425	106	0	2138	0.199	425	281	0.2	0.3	2.164	A
5 - Residential Access	0	0	425	1191	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	345	86	0	2278	0.151	344	520	0.1	0.2	1.916	A
2 - Site Access north	0	0	344	1643	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	344	2519	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	521	130	0	2138	0.244	520	344	0.3	0.3	2.292	A
5 - Residential Access	0	0	520	1146	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	345	86	0	2278	0.151	345	521	0.2	0.2	1.916	A
2 - Site Access north	0	0	345	1642	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	345	2519	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	521	130	0	2138	0.244	521	345	0.3	0.3	2.292	A
5 - Residential Access	0	0	521	1146	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	281	70	0	2278	0.124	282	426	0.2	0.1	1.859	A
2 - Site Access north	0	0	282	1679	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	282	2565	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	425	106	0	2138	0.199	426	282	0.3	0.3	2.166	A
5 - Residential Access	0	0	426	1191	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	236	59	0	2278	0.103	236	356	0.1	0.1	1.814	A
2 - Site Access north	0	0	236	1706	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	236	2599	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	356	89	0	2138	0.167	356	236	0.3	0.2	2.082	A
5 - Residential Access	0	0	356	1224	0.000	0	0	0.0	0.0	0.000	A

2026 Residential Phase 1a, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.19	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	553	100.000
2 - Site Access north		ONE HOUR	✓	0	100.000
3 - Site Access south		ONE HOUR	✓	0	100.000
4 - Higham Common Road south		ONE HOUR	✓	416	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	553	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	0	0	0	0	0
	4 - Higham Common Road south	416	0	0	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	1	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	0	0	0	0	0
	4 - Higham Common Road south	3	0	0	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.27	2.18	0.4	A	507	761
2 - Site Access north	0.00	0.00	0.0	A	0	0
3 - Site Access south	0.00	0.00	0.0	A	0	0
4 - Higham Common Road south	0.21	2.21	0.3	A	382	573
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	416	104	0	2278	0.183	415	312	0.0	0.2	1.951	A
2 - Site Access north	0	0	415	1601	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	415	2467	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	313	78	0	2138	0.146	312	415	0.0	0.2	2.031	A
5 - Residential Access	0	0	312	1245	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	497	124	0	2278	0.218	497	374	0.2	0.3	2.041	A
2 - Site Access north	0	0	497	1554	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	497	2407	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	374	93	0	2138	0.175	374	497	0.2	0.2	2.101	A
5 - Residential Access	0	0	374	1216	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	609	152	0	2278	0.267	609	458	0.3	0.4	2.177	A
2 - Site Access north	0	0	609	1489	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	609	2325	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	458	115	0	2138	0.214	458	609	0.2	0.3	2.206	A
5 - Residential Access	0	0	458	1176	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	609	152	0	2278	0.267	609	458	0.4	0.4	2.177	A
2 - Site Access north	0	0	609	1489	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	609	2324	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	458	115	0	2138	0.214	458	609	0.3	0.3	2.206	A
5 - Residential Access	0	0	458	1175	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	497	124	0	2278	0.218	497	374	0.4	0.3	2.043	A
2 - Site Access north	0	0	497	1554	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	497	2406	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	374	93	0	2138	0.175	374	497	0.3	0.2	2.103	A
5 - Residential Access	0	0	374	1215	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	416	104	0	2278	0.183	417	313	0.3	0.2	1.953	A
2 - Site Access north	0	0	417	1601	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	0	0	417	2466	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	313	78	0	2138	0.146	313	417	0.2	0.2	2.032	A
5 - Residential Access	0	0	313	1244	0.000	0	0	0.0	0.0	0.000	A

2033 Full Residential, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	103	100.000
2 - Site Access north		ONE HOUR	✓	506	100.000
3 - Site Access south		ONE HOUR	✓	0	100.000
4 - Higham Common Road south		ONE HOUR	✓	530	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	6	0	97	0
	2 - Site Access north	20	0	0	486	0
	3 - Site Access south	0	0	0	0	0
	4 - Higham Common Road south	101	429	0	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	9	0
	2 - Site Access north	0	0	0	1	0
	3 - Site Access south	0	0	0	0	0
	4 - Higham Common Road south	7	2	0	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.06	2.10	0.1	A	95	142
2 - Site Access north	0.31	2.97	0.5	A	464	696
3 - Site Access south	0.00	0.00	0.0	A	0	0
4 - Higham Common Road south	0.27	2.40	0.4	A	486	730
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	78	19	322	2069	0.037	77	91	0.0	0.0	1.960	A
2 - Site Access north	381	95	73	1800	0.212	380	327	0.0	0.3	2.557	A
3 - Site Access south	0	0	453	2439	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	399	100	15	2129	0.187	398	438	0.0	0.2	2.139	A
5 - Residential Access	0	0	413	1197	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	93	23	385	2027	0.046	93	109	0.0	0.1	2.017	A
2 - Site Access north	455	114	87	1792	0.254	455	391	0.3	0.3	2.717	A
3 - Site Access south	0	0	542	2374	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	476	119	18	2127	0.224	476	524	0.2	0.3	2.244	A
5 - Residential Access	0	0	494	1158	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	113	28	472	1971	0.058	113	133	0.1	0.1	2.101	A
2 - Site Access north	557	139	107	1781	0.313	557	479	0.3	0.5	2.969	A
3 - Site Access south	0	0	663	2284	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	584	146	22	2124	0.275	583	641	0.3	0.4	2.404	A
5 - Residential Access	0	0	605	1105	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	113	28	472	1971	0.058	113	133	0.1	0.1	2.101	A
2 - Site Access north	557	139	107	1781	0.313	557	479	0.5	0.5	2.969	A
3 - Site Access south	0	0	664	2284	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	584	146	22	2124	0.275	584	642	0.4	0.4	2.404	A
5 - Residential Access	0	0	606	1105	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	93	23	386	2027	0.046	93	109	0.1	0.1	2.017	A
2 - Site Access north	455	114	87	1792	0.254	455	391	0.5	0.3	2.719	A
3 - Site Access south	0	0	543	2373	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	476	119	18	2127	0.224	477	525	0.4	0.3	2.245	A
5 - Residential Access	0	0	495	1158	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	78	19	323	2068	0.038	78	91	0.1	0.0	1.961	A
2 - Site Access north	381	95	73	1800	0.212	381	328	0.3	0.3	2.563	A
3 - Site Access south	0	0	454	2438	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	399	100	15	2129	0.187	399	439	0.3	0.2	2.143	A
5 - Residential Access	0	0	414	1196	0.000	0	0	0.0	0.0	0.000	A

2033 Full Residential, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.11	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.11	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	120	100.000
2 - Site Access north		ONE HOUR	✓	732	100.000
3 - Site Access south		ONE HOUR	✓	0	100.000
4 - Higham Common Road south		ONE HOUR	✓	690	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	21	0	99	0
	2 - Site Access north	12	0	0	720	0
	3 - Site Access south	0	0	0	0	0
	4 - Higham Common Road south	251	439	0	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	3	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	0	0	0	0	0
	4 - Higham Common Road south	4	1	0	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.07	2.01	0.1	A	110	165
2 - Site Access north	0.45	3.70	0.8	A	672	1008
3 - Site Access south	0.00	0.00	0.0	A	0	0
4 - Higham Common Road south	0.36	2.68	0.6	A	633	950
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	90	23	330	2064	0.044	90	197	0.0	0.0	1.868	A
2 - Site Access north	551	138	74	1800	0.306	549	345	0.0	0.4	2.876	A
3 - Site Access south	0	0	624	2314	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	519	130	9	2132	0.244	518	615	0.0	0.3	2.274	A
5 - Residential Access	0	0	527	1142	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	108	27	394	2022	0.053	108	236	0.0	0.1	1.927	A
2 - Site Access north	658	165	89	1791	0.367	658	413	0.4	0.6	3.174	A
3 - Site Access south	0	0	746	2223	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	620	155	11	2131	0.291	620	736	0.3	0.4	2.431	A
5 - Residential Access	0	0	631	1093	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	132	33	483	1964	0.067	132	289	0.1	0.1	2.013	A
2 - Site Access north	806	201	109	1779	0.453	805	506	0.6	0.8	3.691	A
3 - Site Access south	0	0	914	2100	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	760	190	13	2130	0.357	759	901	0.4	0.6	2.679	A
5 - Residential Access	0	0	772	1026	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	132	33	483	1964	0.067	132	290	0.1	0.1	2.013	A
2 - Site Access north	806	201	109	1779	0.453	806	506	0.8	0.8	3.697	A
3 - Site Access south	0	0	915	2099	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	760	190	13	2130	0.357	760	902	0.6	0.6	2.681	A
5 - Residential Access	0	0	773	1025	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	108	27	395	2021	0.053	108	237	0.1	0.1	1.927	A
2 - Site Access north	658	165	89	1791	0.367	659	414	0.8	0.6	3.184	A
3 - Site Access south	0	0	748	2222	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	620	155	11	2131	0.291	621	737	0.6	0.4	2.433	A
5 - Residential Access	0	0	632	1093	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	90	23	331	2063	0.044	90	198	0.1	0.0	1.869	A
2 - Site Access north	551	138	75	1799	0.306	552	347	0.6	0.4	2.885	A
3 - Site Access south	0	0	626	2312	0.000	0	0	0.0	0.0	0.000	A
4 - Higham Common Road south	519	130	9	2132	0.244	520	617	0.4	0.3	2.280	A
5 - Residential Access	0	0	529	1142	0.000	0	0	0.0	0.0	0.000	A

2026 Employment, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	404	100.000
2 - Site Access north		ONE HOUR	✓	0	100.000
3 - Site Access south		ONE HOUR	✓	109	100.000
4 - Higham Common Road south		ONE HOUR	✓	593	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	110	294	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	52	0	0	57	0
	4 - Higham Common Road south	476	0	117	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	13	4	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	36	0	0	43	0
	4 - Higham Common Road south	3	0	16	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.20	2.19	0.3	A	371	556
2 - Site Access north	0.00	0.00	0.0	A	0	0
3 - Site Access south	0.05	2.08	0.1	A	100	150
4 - Higham Common Road south	0.31	2.61	0.5	A	544	816
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	304	76	88	2221	0.137	303	397	0.0	0.2	1.996	A
2 - Site Access north	0	0	391	1615	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	82	21	221	2610	0.031	82	170	0.0	0.0	1.987	A
4 - Higham Common Road south	446	112	39	2114	0.211	445	264	0.0	0.3	2.271	A
5 - Residential Access	0	0	484	1163	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	363	91	105	2210	0.164	363	474	0.2	0.2	2.072	A
2 - Site Access north	0	0	468	1571	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	98	24	264	2578	0.038	98	204	0.0	0.1	2.025	A
4 - Higham Common Road south	533	133	47	2109	0.253	533	315	0.3	0.4	2.405	A
5 - Residential Access	0	0	580	1118	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	445	111	129	2194	0.203	445	581	0.2	0.3	2.186	A
2 - Site Access north	0	0	573	1509	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	120	30	324	2534	0.047	120	250	0.1	0.1	2.080	A
4 - Higham Common Road south	653	163	57	2103	0.311	652	386	0.4	0.5	2.615	A
5 - Residential Access	0	0	710	1056	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	445	111	129	2194	0.203	445	581	0.3	0.3	2.187	A
2 - Site Access north	0	0	574	1509	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	120	30	324	2534	0.047	120	250	0.1	0.1	2.080	A
4 - Higham Common Road south	653	163	57	2103	0.311	653	386	0.5	0.5	2.615	A
5 - Residential Access	0	0	710	1055	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	363	91	105	2210	0.164	363	475	0.3	0.2	2.072	A
2 - Site Access north	0	0	469	1570	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	98	24	264	2578	0.038	98	204	0.1	0.1	2.025	A
4 - Higham Common Road south	533	133	47	2109	0.253	534	316	0.5	0.4	2.406	A
5 - Residential Access	0	0	580	1117	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	304	76	88	2221	0.137	304	398	0.2	0.2	1.998	A
2 - Site Access north	0	0	392	1615	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	82	21	221	2610	0.031	82	171	0.1	0.0	1.989	A
4 - Higham Common Road south	446	112	39	2114	0.211	447	264	0.4	0.3	2.276	A
5 - Residential Access	0	0	486	1162	0.000	0	0	0.0	0.0	0.000	A

2026 Employment, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.29	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	595	100.000
2 - Site Access north		ONE HOUR	✓	0	100.000
3 - Site Access south		ONE HOUR	✓	187	100.000
4 - Higham Common Road south		ONE HOUR	✓	442	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	44	551	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	94	0	0	93	0
	4 - Higham Common Road south	397	0	45	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	32	1	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	11	0	0	14	0
	4 - Higham Common Road south	3	0	42	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.29	2.33	0.4	A	546	819
2 - Site Access north	0.00	0.00	0.0	A	0	0
3 - Site Access south	0.09	1.91	0.1	A	172	257
4 - Higham Common Road south	0.23	2.40	0.3	A	406	608
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	448	112	34	2256	0.199	447	369	0.0	0.3	2.044	A
2 - Site Access north	0	0	481	1563	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	141	35	414	2468	0.057	141	67	0.0	0.1	1.739	A
4 - Higham Common Road south	333	83	71	2094	0.159	332	484	0.0	0.2	2.163	A
5 - Residential Access	0	0	403	1202	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	535	134	40	2252	0.238	535	441	0.3	0.3	2.154	A
2 - Site Access north	0	0	575	1508	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	168	42	495	2408	0.070	168	80	0.1	0.1	1.806	A
4 - Higham Common Road south	397	99	84	2086	0.191	397	579	0.2	0.2	2.258	A
5 - Residential Access	0	0	482	1164	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	655	164	50	2246	0.292	655	540	0.3	0.4	2.325	A
2 - Site Access north	0	0	704	1433	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	206	51	606	2326	0.089	206	98	0.1	0.1	1.908	A
4 - Higham Common Road south	487	122	103	2074	0.235	486	709	0.2	0.3	2.402	A
5 - Residential Access	0	0	590	1113	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	655	164	50	2246	0.292	655	541	0.4	0.4	2.325	A
2 - Site Access north	0	0	705	1433	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	206	51	607	2326	0.089	206	98	0.1	0.1	1.908	A
4 - Higham Common Road south	487	122	103	2074	0.235	487	709	0.3	0.3	2.402	A
5 - Residential Access	0	0	590	1112	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	535	134	40	2252	0.238	535	442	0.4	0.3	2.157	A
2 - Site Access north	0	0	576	1508	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	168	42	496	2408	0.070	168	80	0.1	0.1	1.807	A
4 - Higham Common Road south	397	99	85	2086	0.191	398	579	0.3	0.3	2.261	A
5 - Residential Access	0	0	482	1164	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	448	112	34	2256	0.199	448	370	0.3	0.3	2.046	A
2 - Site Access north	0	0	482	1563	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	141	35	415	2467	0.057	141	67	0.1	0.1	1.742	A
4 - Higham Common Road south	333	83	71	2094	0.159	333	485	0.3	0.2	2.167	A
5 - Residential Access	0	0	404	1201	0.000	0	0	0.0	0.0	0.000	A

2026 Phase 1 (Without Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	426	100.000
2 - Site Access north		ONE HOUR	✓	0	100.000
3 - Site Access south		ONE HOUR	✓	109	100.000
4 - Higham Common Road south		ONE HOUR	✓	599	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	110	316	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	52	0	0	57	0
	4 - Higham Common Road south	482	0	117	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	13	3	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	36	0	0	43	0
	4 - Higham Common Road south	3	0	16	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.21	2.20	0.3	A	391	586
2 - Site Access north	0.00	0.00	0.0	A	0	0
3 - Site Access south	0.05	2.10	0.1	A	100	150
4 - Higham Common Road south	0.31	2.63	0.5	A	550	824
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	321	80	88	2221	0.144	320	401	0.0	0.2	1.996	A
2 - Site Access north	0	0	408	1606	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	82	21	237	2598	0.032	82	170	0.0	0.0	1.996	A
4 - Higham Common Road south	451	113	39	2114	0.213	450	280	0.0	0.3	2.277	A
5 - Residential Access	0	0	489	1161	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	383	96	105	2210	0.173	383	480	0.2	0.2	2.076	A
2 - Site Access north	0	0	488	1559	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	98	24	284	2564	0.038	98	204	0.0	0.1	2.037	A
4 - Higham Common Road south	538	135	47	2109	0.255	538	335	0.3	0.4	2.413	A
5 - Residential Access	0	0	585	1115	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	469	117	129	2194	0.214	469	588	0.2	0.3	2.198	A
2 - Site Access north	0	0	597	1495	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	120	30	348	2517	0.048	120	250	0.1	0.1	2.096	A
4 - Higham Common Road south	660	165	57	2103	0.314	659	410	0.4	0.5	2.626	A
5 - Residential Access	0	0	716	1052	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	469	117	129	2194	0.214	469	588	0.3	0.3	2.199	A
2 - Site Access north	0	0	598	1495	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	120	30	348	2517	0.048	120	250	0.1	0.1	2.096	A
4 - Higham Common Road south	660	165	57	2103	0.314	660	411	0.5	0.5	2.626	A
5 - Residential Access	0	0	717	1052	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	383	96	105	2210	0.173	383	480	0.3	0.2	2.079	A
2 - Site Access north	0	0	488	1559	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	98	24	284	2563	0.038	98	204	0.1	0.1	2.037	A
4 - Higham Common Road south	538	135	47	2109	0.255	539	336	0.5	0.4	2.414	A
5 - Residential Access	0	0	586	1115	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	321	80	88	2221	0.144	321	402	0.2	0.2	1.998	A
2 - Site Access north	0	0	409	1605	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	82	21	238	2597	0.032	82	171	0.1	0.0	1.997	A
4 - Higham Common Road south	451	113	39	2114	0.213	451	281	0.4	0.3	2.280	A
5 - Residential Access	0	0	490	1160	0.000	0	0	0.0	0.0	0.000	A

2026 Phase 1 (Without Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.32	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	608	100.000
2 - Site Access north		ONE HOUR	✓	0	100.000
3 - Site Access south		ONE HOUR	✓	187	100.000
4 - Higham Common Road south		ONE HOUR	✓	465	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	44	564	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	94	0	0	93	0
	4 - Higham Common Road south	420	0	45	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	32	1	0
	2 - Site Access north	0	0	0	0	0
	3 - Site Access south	11	0	0	14	0
	4 - Higham Common Road south	3	0	42	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.30	2.35	0.4	A	558	837
2 - Site Access north	0.00	0.00	0.0	A	0	0
3 - Site Access south	0.09	1.92	0.1	A	172	257
4 - Higham Common Road south	0.25	2.44	0.3	A	427	640
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	458	114	34	2256	0.203	457	386	0.0	0.3	2.054	A
2 - Site Access north	0	0	490	1558	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	141	35	424	2461	0.057	141	67	0.0	0.1	1.744	A
4 - Higham Common Road south	350	88	71	2094	0.167	349	494	0.0	0.2	2.181	A
5 - Residential Access	0	0	420	1194	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	547	137	40	2252	0.243	546	462	0.3	0.3	2.168	A
2 - Site Access north	0	0	587	1502	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	168	42	507	2400	0.070	168	80	0.1	0.1	1.813	A
4 - Higham Common Road south	418	105	84	2086	0.200	418	590	0.2	0.3	2.283	A
5 - Residential Access	0	0	502	1154	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	669	167	50	2246	0.298	669	566	0.3	0.4	2.345	A
2 - Site Access north	0	0	719	1425	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	206	51	621	2316	0.089	206	98	0.1	0.1	1.917	A
4 - Higham Common Road south	512	128	103	2074	0.247	512	723	0.3	0.3	2.438	A
5 - Residential Access	0	0	615	1101	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	669	167	50	2246	0.298	669	566	0.4	0.4	2.345	A
2 - Site Access north	0	0	719	1425	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	206	51	621	2316	0.089	206	98	0.1	0.1	1.918	A
4 - Higham Common Road south	512	128	103	2074	0.247	512	723	0.3	0.3	2.438	A
5 - Residential Access	0	0	615	1100	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	547	137	40	2252	0.243	547	462	0.4	0.3	2.169	A
2 - Site Access north	0	0	587	1501	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	168	42	507	2399	0.070	168	80	0.1	0.1	1.816	A
4 - Higham Common Road south	418	105	85	2086	0.200	418	591	0.3	0.3	2.286	A
5 - Residential Access	0	0	503	1154	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	458	114	34	2256	0.203	458	387	0.3	0.3	2.058	A
2 - Site Access north	0	0	492	1557	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access south	141	35	425	2460	0.057	141	67	0.1	0.1	1.747	A
4 - Higham Common Road south	350	88	71	2094	0.167	350	495	0.3	0.2	2.184	A
5 - Residential Access	0	0	421	1193	0.000	0	0	0.0	0.0	0.000	A

2026 Phase 1 (With Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.68	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	93	100.000
2 - Site Access north		ONE HOUR	✓	426	100.000
3 - Site Access south		ONE HOUR	✓	109	100.000
4 - Higham Common Road south		ONE HOUR	✓	584	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	2	9	82	0
	2 - Site Access north	4	0	97	325	0
	3 - Site Access south	4	47	0	58	0
	4 - Higham Common Road south	78	385	121	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	10	0
	2 - Site Access north	0	0	15	1	0
	3 - Site Access south	0	42	0	42	0
	4 - Higham Common Road south	8	2	15	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.05	2.20	0.1	A	85	128
2 - Site Access north	0.27	3.02	0.4	A	391	586
3 - Site Access south	0.05	2.17	0.1	A	100	150
4 - Higham Common Road south	0.31	2.60	0.5	A	536	804
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	70	18	415	2008	0.035	70	65	0.0	0.0	2.019	A
2 - Site Access north	321	80	159	1750	0.183	320	326	0.0	0.2	2.613	A
3 - Site Access south	82	21	309	2545	0.032	82	170	0.0	0.0	2.043	A
4 - Higham Common Road south	440	110	41	2112	0.208	439	349	0.0	0.3	2.262	A
5 - Residential Access	0	0	480	1165	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	84	21	497	1955	0.043	84	77	0.0	0.0	2.091	A
2 - Site Access north	383	96	190	1732	0.221	383	390	0.2	0.3	2.771	A
3 - Site Access south	98	24	369	2501	0.039	98	204	0.0	0.1	2.094	A
4 - Higham Common Road south	525	131	49	2107	0.249	525	418	0.3	0.3	2.393	A
5 - Residential Access	0	0	574	1120	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	102	26	608	1882	0.054	102	95	0.0	0.1	2.198	A
2 - Site Access north	469	117	233	1707	0.275	469	478	0.3	0.4	3.019	A
3 - Site Access south	120	30	452	2440	0.049	120	250	0.1	0.1	2.169	A
4 - Higham Common Road south	643	161	61	2101	0.306	643	512	0.3	0.5	2.598	A
5 - Residential Access	0	0	703	1059	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	102	26	609	1882	0.054	102	95	0.1	0.1	2.198	A
2 - Site Access north	469	117	233	1707	0.275	469	478	0.4	0.4	3.019	A
3 - Site Access south	120	30	453	2440	0.049	120	250	0.1	0.1	2.170	A
4 - Higham Common Road south	643	161	61	2101	0.306	643	512	0.5	0.5	2.598	A
5 - Residential Access	0	0	704	1058	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	84	21	498	1954	0.043	84	77	0.1	0.0	2.091	A
2 - Site Access north	383	96	191	1732	0.221	383	390	0.4	0.3	2.773	A
3 - Site Access south	98	24	370	2500	0.039	98	204	0.1	0.1	2.097	A
4 - Higham Common Road south	525	131	49	2107	0.249	525	418	0.5	0.4	2.395	A
5 - Residential Access	0	0	575	1120	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	70	18	417	2007	0.035	70	65	0.0	0.0	2.021	A
2 - Site Access north	321	80	160	1750	0.183	321	327	0.3	0.2	2.616	A
3 - Site Access south	82	21	310	2545	0.032	82	171	0.1	0.0	2.045	A
4 - Higham Common Road south	440	110	41	2112	0.208	440	350	0.4	0.3	2.267	A
5 - Residential Access	0	0	481	1164	0.000	0	0	0.0	0.0	0.000	A

2026 Phase 1 (With Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.90	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	81	100.000
2 - Site Access north		ONE HOUR	✓	663	100.000
3 - Site Access south		ONE HOUR	✓	186	100.000
4 - Higham Common Road south		ONE HOUR	✓	551	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	5	4	72	0
	2 - Site Access north	2	0	38	623	0
	3 - Site Access south	10	79	0	97	0
	4 - Higham Common Road south	230	274	47	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	4	0
	2 - Site Access north	0	0	39	0	0
	3 - Site Access south	0	14	0	14	0
	4 - Higham Common Road south	4	2	39	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.04	1.96	0.0	A	74	111
2 - Site Access north	0.41	3.54	0.7	A	608	913
3 - Site Access south	0.09	2.03	0.1	A	171	256
4 - Higham Common Road south	0.29	2.58	0.4	A	506	758
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	61	15	300	2083	0.029	61	182	0.0	0.0	1.842	A
2 - Site Access north	499	125	92	1789	0.279	498	269	0.0	0.4	2.829	A
3 - Site Access south	140	35	523	2388	0.059	140	67	0.0	0.1	1.811	A
4 - Higham Common Road south	415	104	68	2096	0.198	414	595	0.0	0.3	2.251	A
5 - Residential Access	0	0	482	1164	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	73	18	359	2044	0.036	73	217	0.0	0.0	1.889	A
2 - Site Access north	596	149	111	1779	0.335	596	322	0.4	0.5	3.090	A
3 - Site Access south	167	42	626	2312	0.072	167	80	0.1	0.1	1.898	A
4 - Higham Common Road south	495	124	82	2087	0.237	495	711	0.3	0.3	2.379	A
5 - Residential Access	0	0	577	1119	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	89	22	440	1992	0.045	89	266	0.0	0.0	1.958	A
2 - Site Access north	730	182	135	1764	0.414	729	394	0.5	0.7	3.531	A
3 - Site Access south	205	51	767	2208	0.093	205	98	0.1	0.1	2.032	A
4 - Higham Common Road south	607	152	100	2076	0.292	606	871	0.3	0.4	2.577	A
5 - Residential Access	0	0	706	1057	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	89	22	440	1992	0.045	89	266	0.0	0.0	1.959	A
2 - Site Access north	730	182	135	1764	0.414	730	394	0.7	0.7	3.537	A
3 - Site Access south	205	51	767	2208	0.093	205	98	0.1	0.1	2.033	A
4 - Higham Common Road south	607	152	100	2076	0.292	607	872	0.4	0.4	2.577	A
5 - Residential Access	0	0	707	1057	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	73	18	360	2044	0.036	73	218	0.0	0.0	1.890	A
2 - Site Access north	596	149	111	1778	0.335	597	322	0.7	0.5	3.100	A
3 - Site Access south	167	42	627	2311	0.072	167	80	0.1	0.1	1.899	A
4 - Higham Common Road south	495	124	82	2087	0.237	496	713	0.4	0.3	2.382	A
5 - Residential Access	0	0	578	1118	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	61	15	301	2082	0.029	61	182	0.0	0.0	1.846	A
2 - Site Access north	499	125	93	1789	0.279	500	270	0.5	0.4	2.840	A
3 - Site Access south	140	35	525	2386	0.059	140	67	0.1	0.1	1.812	A
4 - Higham Common Road south	415	104	69	2096	0.198	415	597	0.3	0.3	2.256	A
5 - Residential Access	0	0	484	1163	0.000	0	0	0.0	0.0	0.000	A

2033 Full Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.04	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	115	100.000
2 - Site Access north		ONE HOUR	✓	607	100.000
3 - Site Access south		ONE HOUR	✓	109	100.000
4 - Higham Common Road south		ONE HOUR	✓	656	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	7	9	99	0
	2 - Site Access north	24	0	97	486	0
	3 - Site Access south	4	47	0	58	0
	4 - Higham Common Road south	106	429	121	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	9	0
	2 - Site Access north	0	0	15	1	0
	3 - Site Access south	0	42	0	42	0
	4 - Higham Common Road south	7	2	15	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.07	2.25	0.1	A	106	158
2 - Site Access north	0.39	3.60	0.7	A	557	835
3 - Site Access south	0.05	2.33	0.1	A	100	150
4 - Higham Common Road south	0.35	2.77	0.6	A	602	903
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	87	22	448	1986	0.044	86	101	0.0	0.0	2.039	A
2 - Site Access north	457	114	172	1743	0.262	456	363	0.0	0.4	2.877	A
3 - Site Access south	82	21	457	2436	0.034	82	170	0.0	0.0	2.138	A
4 - Higham Common Road south	494	123	56	2103	0.235	493	483	0.0	0.3	2.344	A
5 - Residential Access	0	0	549	1132	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	103	26	536	1929	0.054	103	120	0.0	0.1	2.122	A
2 - Site Access north	546	136	206	1723	0.317	545	434	0.4	0.5	3.147	A
3 - Site Access south	98	24	547	2370	0.041	98	204	0.0	0.1	2.215	A
4 - Higham Common Road south	590	147	67	2096	0.281	589	578	0.3	0.4	2.507	A
5 - Residential Access	0	0	657	1081	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	127	32	657	1851	0.068	127	147	0.1	0.1	2.247	A
2 - Site Access north	668	167	252	1696	0.394	668	531	0.5	0.7	3.601	A
3 - Site Access south	120	30	670	2280	0.053	120	250	0.1	0.1	2.330	A
4 - Higham Common Road south	722	181	83	2087	0.346	722	707	0.4	0.6	2.766	A
5 - Residential Access	0	0	804	1011	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	127	32	657	1850	0.068	127	148	0.1	0.1	2.247	A
2 - Site Access north	668	167	252	1696	0.394	668	532	0.7	0.7	3.605	A
3 - Site Access south	120	30	671	2279	0.053	120	250	0.1	0.1	2.331	A
4 - Higham Common Road south	722	181	83	2087	0.346	722	708	0.6	0.6	2.768	A
5 - Residential Access	0	0	805	1010	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	103	26	537	1929	0.054	103	121	0.1	0.1	2.123	A
2 - Site Access north	546	136	206	1723	0.317	546	435	0.7	0.5	3.151	A
3 - Site Access south	98	24	548	2369	0.041	98	204	0.1	0.1	2.218	A
4 - Higham Common Road south	590	147	67	2096	0.281	590	579	0.6	0.4	2.509	A
5 - Residential Access	0	0	658	1080	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	87	22	450	1985	0.044	87	101	0.1	0.0	2.040	A
2 - Site Access north	457	114	173	1743	0.262	457	364	0.5	0.4	2.884	A
3 - Site Access south	82	21	459	2435	0.034	82	171	0.1	0.0	2.141	A
4 - Higham Common Road south	494	123	57	2103	0.235	494	485	0.4	0.3	2.351	A
5 - Residential Access	0	0	551	1131	0.000	0	0	0.0	0.0	0.000	A

2033 Full Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.30	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Higham Common Road north		ONE HOUR	✓	134	100.000
2 - Site Access north		ONE HOUR	✓	772	100.000
3 - Site Access south		ONE HOUR	✓	186	100.000
4 - Higham Common Road south		ONE HOUR	✓	739	100.000
5 - Residential Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	26	4	104	0
	2 - Site Access north	14	0	38	720	0
	3 - Site Access south	10	79	0	97	0
	4 - Higham Common Road south	253	439	47	0	0
	5 - Residential Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Higham Common Road north	2 - Site Access north	3 - Site Access south	4 - Higham Common Road south	5 - Residential Access
From	1 - Higham Common Road north	0	0	0	3	0
	2 - Site Access north	0	0	39	0	0
	3 - Site Access south	0	14	0	14	0
	4 - Higham Common Road south	4	1	39	0	0
	5 - Residential Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Higham Common Road north	0.08	2.13	0.1	A	123	184
2 - Site Access north	0.49	4.08	1.0	A	708	1063
3 - Site Access south	0.10	2.16	0.1	A	171	256
4 - Higham Common Road south	0.39	2.98	0.7	A	678	1017
5 - Residential Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	101	25	424	2002	0.050	101	208	0.0	0.1	1.937	A
2 - Site Access north	581	145	116	1775	0.327	579	408	0.0	0.5	3.047	A
3 - Site Access south	140	35	629	2310	0.061	140	67	0.0	0.1	1.876	A
4 - Higham Common Road south	556	139	77	2090	0.266	555	691	0.0	0.4	2.432	A
5 - Residential Access	0	0	632	1092	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	120	30	508	1948	0.062	120	249	0.1	0.1	2.015	A
2 - Site Access north	694	174	139	1762	0.394	693	489	0.5	0.7	3.415	A
3 - Site Access south	167	42	753	2219	0.075	167	80	0.1	0.1	1.985	A
4 - Higham Common Road south	664	166	93	2081	0.319	664	827	0.4	0.5	2.638	A
5 - Residential Access	0	0	756	1033	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	148	37	622	1874	0.079	147	305	0.1	0.1	2.133	A
2 - Site Access north	850	212	171	1744	0.487	849	598	0.7	1.0	4.074	A
3 - Site Access south	205	51	921	2094	0.098	205	98	0.1	0.1	2.155	A
4 - Higham Common Road south	814	203	113	2068	0.393	813	1013	0.5	0.7	2.977	A
5 - Residential Access	0	0	926	952	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	148	37	622	1873	0.079	148	305	0.1	0.1	2.133	A
2 - Site Access north	850	212	171	1744	0.487	850	599	1.0	1.0	4.084	A
3 - Site Access south	205	51	923	2094	0.098	205	98	0.1	0.1	2.156	A
4 - Higham Common Road south	814	203	113	2068	0.393	814	1014	0.7	0.7	2.979	A
5 - Residential Access	0	0	927	952	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	120	30	508	1947	0.062	121	249	0.1	0.1	2.016	A
2 - Site Access north	694	174	139	1762	0.394	695	490	1.0	0.7	3.425	A
3 - Site Access south	167	42	755	2217	0.075	167	80	0.1	0.1	1.986	A
4 - Higham Common Road south	664	166	93	2081	0.319	665	829	0.7	0.5	2.643	A
5 - Residential Access	0	0	758	1033	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Higham Common Road north	101	25	426	2001	0.050	101	209	0.1	0.1	1.939	A
2 - Site Access north	581	145	117	1775	0.327	582	410	0.7	0.5	3.063	A
3 - Site Access south	140	35	632	2308	0.061	140	67	0.1	0.1	1.881	A
4 - Higham Common Road south	556	139	78	2090	0.266	557	694	0.5	0.4	2.438	A
5 - Residential Access	0	0	634	1091	0.000	0	0	0.0	0.0	0.000	A

Appendix J-3

Junctions 10 Output – Internal Roundabout North

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: 2023-11-03 Internal North Rbt.j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Internal North Rbt
Report generation date: 09/11/2023 11:16:35

»2026 Residential Phase 1a, AM
»2026 Residential Phase 1a, PM
»2023 Full Residential, AM
»2023 Full Residential, PM
»2026 Employment, AM
»2026 Employment, PM
»2026 Phase 1 (Without Link Road), AM
»2026 Phase 1 (Without Link Road), PM
»2026 Phase 1 (With Link Road), AM
»2026 Phase 1 (With Link Road), PM
»2033 Full Development, AM
»2033 Full Development, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2026 Residential Phase 1a						
1 - Site Access east	0.0	0.00	0.00	0.0	0.00	0.00
2 - Link Road south	0.0	0.00	0.00	0.0	0.00	0.00
3 - Site Access west	0.0	2.79	0.05	0.0	2.74	0.03
4 - Link Road north	0.0	2.53	0.01	0.0	2.62	0.05
2023 Full Residential						
1 - Site Access east	0.2	3.66	0.16	0.1	4.31	0.11
2 - Link Road south	0.5	4.02	0.35	0.4	3.59	0.28
3 - Site Access west	0.1	3.82	0.07	0.0	3.38	0.04
4 - Link Road north	0.4	3.57	0.28	1.7	7.12	0.64
2026 Employment						
1 - Site Access east	0.0	0.00	0.00	0.0	0.00	0.00
2 - Link Road south	0.0	0.00	0.00	0.0	0.00	0.00
3 - Site Access west	0.0	0.00	0.00	0.0	0.00	0.00
4 - Link Road north	0.0	0.00	0.00	0.0	0.00	0.00
2026 Phase 1 (Without Link Road)						
1 - Site Access east	0.0	0.00	0.00	0.0	0.00	0.00
2 - Link Road south	0.0	0.00	0.00	0.0	0.00	0.00
3 - Site Access west	0.0	2.79	0.05	0.0	2.74	0.03
4 - Link Road north	0.0	2.53	0.01	0.0	2.62	0.05
2026 Phase 1 (With Link Road)						
1 - Site Access east	0.0	0.00	0.00	0.0	0.00	0.00
2 - Link Road south	0.5	3.78	0.32	0.4	3.54	0.27
3 - Site Access west	0.1	3.51	0.06	0.0	3.25	0.03
4 - Link Road north	0.5	3.86	0.32	1.1	5.44	0.53
2033 Full Development						
1 - Site Access east	0.2	3.91	0.17	0.1	4.43	0.11
2 - Link Road south	0.7	4.39	0.39	0.6	4.02	0.35
3 - Site Access west	0.1	3.95	0.07	0.0	3.55	0.04
4 - Link Road north	0.6	4.12	0.36	2.0	7.91	0.67

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

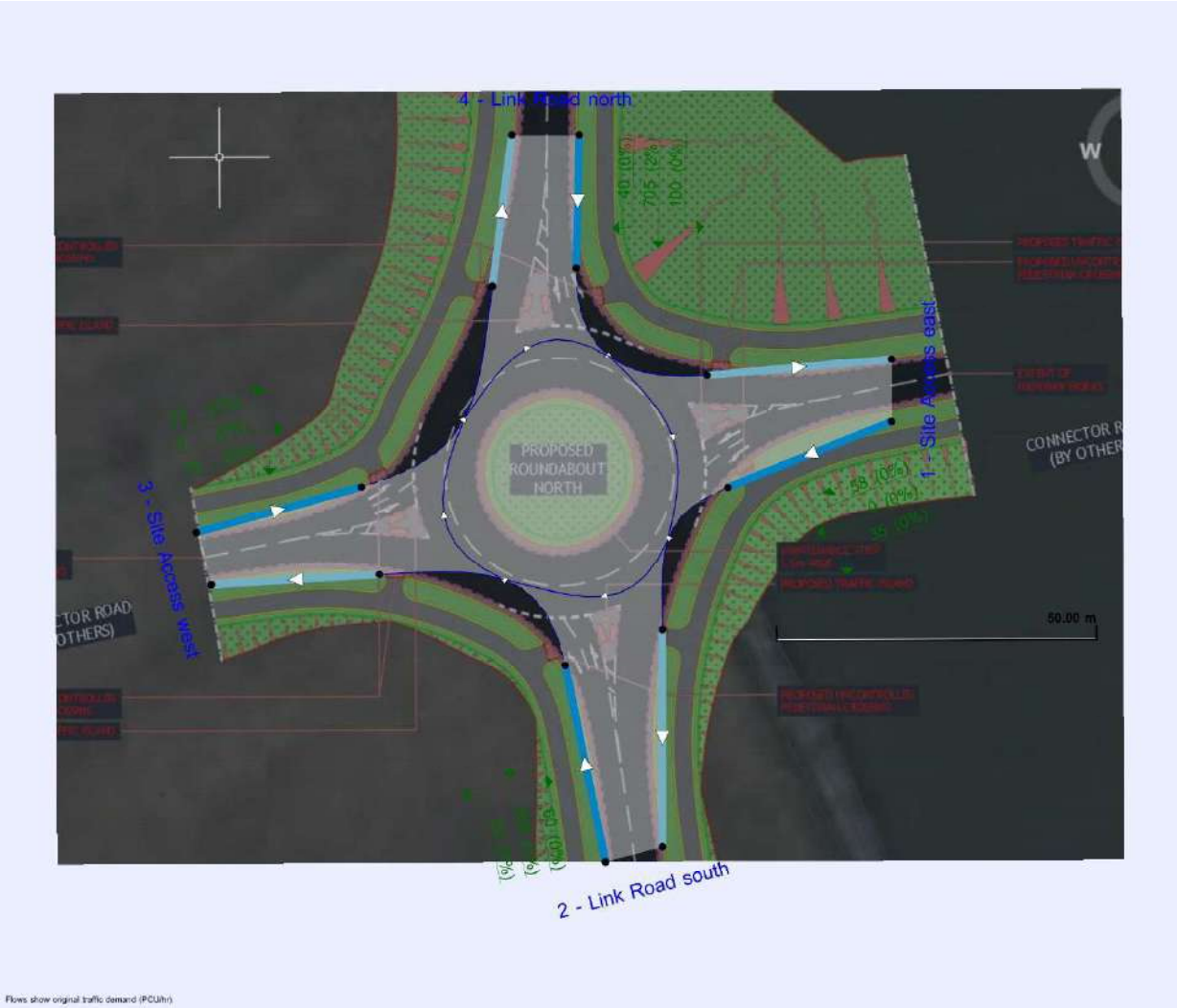
File summary

File Description

Title	Internal North Roundabout
Location	
Site number	
Date	06/11/2023
Version	
Status	Proposed
Identifier	
Client	Strata Sterling Barnsley West Ltd
Jobnumber	
Enumerator	Fore Consulting Limited
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓
D3	2023 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓
D4	2023 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓
D5	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓
D7	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D8	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D9	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D10	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D11	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓
D12	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2026 Residential Phase 1a, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.73	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Site Access east		
2	Link Road south		
3	Site Access west		
4	Link Road north		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Site Access east	3.00	6.62	8.4	26.0	46.0	29.7		
2 - Link Road south	3.62	7.37	4.7	24.0	46.0	18.6		
3 - Site Access west	2.98	6.34	7.6	20.0	46.0	23.7		
4 - Link Road north	3.65	7.52	4.8	15.0	46.0	24.3		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Site Access east	0.567	1388
2 - Link Road south	0.596	1483
3 - Site Access west	0.563	1353
4 - Link Road north	0.575	1439

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	0	100.000
2 - Link Road south		ONE HOUR	✓	0	100.000
3 - Site Access west		ONE HOUR	✓	58	100.000
4 - Link Road north		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	58
	4 - Link Road north	0	0	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.00	0.00	0.0	A	0	0
2 - Link Road south	0.00	0.00	0.0	A	0	0
3 - Site Access west	0.05	2.79	0.0	A	53	80
4 - Link Road north	0.01	2.53	0.0	A	15	22

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	12	1381	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	12	1475	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	44	11	0	1353	0.032	44	12	0.0	0.0	2.748	A
4 - Link Road north	12	3	0	1439	0.008	12	44	0.0	0.0	2.521	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	14	1380	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	14	1474	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	52	13	0	1353	0.039	52	14	0.0	0.0	2.766	A
4 - Link Road north	14	4	0	1439	0.010	14	52	0.0	0.0	2.526	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	18	1378	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	18	1472	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	64	16	0	1353	0.047	64	18	0.0	0.0	2.791	A
4 - Link Road north	18	4	0	1439	0.012	18	64	0.0	0.0	2.531	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	18	1378	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	18	1472	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	64	16	0	1353	0.047	64	18	0.0	0.0	2.791	A
4 - Link Road north	18	4	0	1439	0.012	18	64	0.0	0.0	2.531	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	14	1380	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	14	1474	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	52	13	0	1353	0.039	52	14	0.0	0.0	2.768	A
4 - Link Road north	14	4	0	1439	0.010	14	52	0.0	0.0	2.528	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	12	1381	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	12	1475	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	44	11	0	1353	0.032	44	12	0.0	0.0	2.750	A
4 - Link Road north	12	3	0	1439	0.008	12	44	0.0	0.0	2.523	A

2026 Residential Phase 1a, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	0	100.000
2 - Link Road south		ONE HOUR	✓	0	100.000
3 - Site Access west		ONE HOUR	✓	35	100.000
4 - Link Road north		ONE HOUR	✓	61	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	35
	4 - Link Road north	0	0	61	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.00	0.00	0.0	A	0	0
2 - Link Road south	0.00	0.00	0.0	A	0	0
3 - Site Access west	0.03	2.74	0.0	A	32	48
4 - Link Road north	0.05	2.62	0.0	A	56	84

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	46	1362	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	46	1455	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	26	7	0	1353	0.019	26	46	0.0	0.0	2.712	A
4 - Link Road north	46	11	0	1439	0.032	46	26	0.0	0.0	2.583	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	55	1357	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	55	1450	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	31	8	0	1353	0.023	31	55	0.0	0.0	2.722	A
4 - Link Road north	55	14	0	1439	0.038	55	31	0.0	0.0	2.599	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	67	1350	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	67	1443	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	39	10	0	1353	0.028	39	67	0.0	0.0	2.737	A
4 - Link Road north	67	17	0	1439	0.047	67	39	0.0	0.0	2.623	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	67	1350	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	67	1443	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	39	10	0	1353	0.028	39	67	0.0	0.0	2.737	A
4 - Link Road north	67	17	0	1439	0.047	67	39	0.0	0.0	2.623	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	55	1357	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	55	1450	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	31	8	0	1353	0.023	31	55	0.0	0.0	2.722	A
4 - Link Road north	55	14	0	1439	0.038	55	31	0.0	0.0	2.602	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	46	1362	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	46	1455	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	26	7	0	1353	0.019	26	46	0.0	0.0	2.712	A
4 - Link Road north	46	11	0	1439	0.032	46	26	0.0	0.0	2.585	A

2023 Full Residential, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.79	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2023 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	176	100.000
2 - Link Road south		ONE HOUR	✓	441	100.000
3 - Site Access west		ONE HOUR	✓	63	100.000
4 - Link Road north		ONE HOUR	✓	355	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	58	0	118
	2 - Link Road south	16	0	6	419
	3 - Site Access west	18	17	0	28
	4 - Link Road north	34	310	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	2
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.16	3.66	0.2	A	162	242
2 - Link Road south	0.35	4.02	0.5	A	405	607
3 - Site Access west	0.07	3.82	0.1	A	58	87
4 - Link Road north	0.28	3.57	0.4	A	326	489

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	133	33	254	1244	0.106	132	51	0.0	0.1	3.234	A
2 - Link Road south	332	83	97	1425	0.233	331	289	0.0	0.3	3.350	A
3 - Site Access west	47	12	415	1120	0.042	47	13	0.0	0.0	3.356	A
4 - Link Road north	267	67	38	1417	0.189	266	424	0.0	0.2	3.152	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	158	40	304	1216	0.130	158	61	0.1	0.1	3.403	A
2 - Link Road south	396	99	116	1413	0.280	396	346	0.3	0.4	3.605	A
3 - Site Access west	57	14	497	1073	0.053	57	15	0.0	0.1	3.539	A
4 - Link Road north	319	80	46	1413	0.226	319	507	0.2	0.3	3.319	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	194	48	372	1177	0.165	194	75	0.1	0.2	3.659	A
2 - Link Road south	486	121	142	1398	0.347	485	423	0.4	0.5	4.015	A
3 - Site Access west	69	17	608	1011	0.069	69	19	0.1	0.1	3.823	A
4 - Link Road north	391	98	56	1407	0.278	390	621	0.3	0.4	3.572	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	194	48	372	1177	0.165	194	75	0.2	0.2	3.660	A
2 - Link Road south	486	121	142	1398	0.347	486	424	0.5	0.5	4.020	A
3 - Site Access west	69	17	609	1010	0.069	69	19	0.1	0.1	3.825	A
4 - Link Road north	391	98	56	1407	0.278	391	622	0.4	0.4	3.572	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	158	40	304	1216	0.130	158	61	0.2	0.2	3.407	A
2 - Link Road south	396	99	116	1413	0.281	397	347	0.5	0.4	3.610	A
3 - Site Access west	57	14	498	1073	0.053	57	15	0.1	0.1	3.544	A
4 - Link Road north	319	80	46	1413	0.226	320	509	0.4	0.3	3.324	A

09:15 - 09:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	133	33	255	1244	0.107	133	51	0.2	0.1	3.239	A
2 - Link Road south	332	83	97	1425	0.233	332	290	0.4	0.3	3.358	A
3 - Site Access west	47	12	417	1119	0.042	47	13	0.1	0.0	3.360	A
4 - Link Road north	267	67	38	1417	0.189	268	426	0.3	0.2	3.158	A

2023 Full Residential, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.83	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2023 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	93	100.000
2 - Link Road south		ONE HOUR	✓	365	100.000
3 - Site Access west		ONE HOUR	✓	37	100.000
4 - Link Road north		ONE HOUR	✓	806	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	35	0	58
	2 - Link Road south	60	0	24	281
	3 - Site Access west	0	14	0	23
	4 - Link Road north	100	666	40	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	2
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.11	4.31	0.1	A	85	128
2 - Link Road south	0.28	3.59	0.4	A	335	502
3 - Site Access west	0.04	3.38	0.0	A	34	51
4 - Link Road north	0.64	7.12	1.7	A	740	1109

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	70	18	539	1082	0.065	70	120	0.0	0.1	3.556	A
2 - Link Road south	275	69	73	1439	0.191	274	536	0.0	0.2	3.134	A
3 - Site Access west	28	7	299	1185	0.024	28	48	0.0	0.0	3.111	A
4 - Link Road north	607	152	56	1407	0.431	604	272	0.0	0.8	4.465	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	84	21	646	1021	0.082	84	144	0.1	0.1	3.837	A
2 - Link Road south	328	82	88	1430	0.229	328	642	0.2	0.3	3.316	A
3 - Site Access west	33	8	358	1151	0.029	33	57	0.0	0.0	3.218	A
4 - Link Road north	725	181	66	1401	0.517	723	325	0.8	1.1	5.302	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	102	26	790	940	0.109	102	176	0.1	0.1	4.299	A
2 - Link Road south	402	100	108	1418	0.283	401	785	0.3	0.4	3.592	A
3 - Site Access west	41	10	439	1106	0.037	41	70	0.0	0.0	3.378	A
4 - Link Road north	887	222	81	1392	0.637	885	398	1.1	1.7	7.055	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	102	26	793	938	0.109	102	176	0.1	0.1	4.305	A
2 - Link Road south	402	100	108	1418	0.283	402	787	0.4	0.4	3.595	A
3 - Site Access west	41	10	439	1106	0.037	41	70	0.0	0.0	3.379	A
4 - Link Road north	887	222	81	1392	0.637	887	399	1.7	1.7	7.125	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	84	21	650	1020	0.082	84	144	0.1	0.1	3.848	A
2 - Link Road south	328	82	88	1430	0.229	329	645	0.4	0.3	3.318	A
3 - Site Access west	33	8	359	1151	0.029	33	58	0.0	0.0	3.220	A
4 - Link Road north	725	181	67	1401	0.517	727	326	1.7	1.1	5.365	A

18:15 - 18:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	70	18	543	1080	0.065	70	121	0.1	0.1	3.564	A
2 - Link Road south	275	69	74	1439	0.191	275	539	0.3	0.2	3.143	A
3 - Site Access west	28	7	301	1184	0.024	28	48	0.0	0.0	3.115	A
4 - Link Road north	607	152	56	1407	0.431	608	273	1.1	0.8	4.513	A

2026 Employment, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	0	100.000
2 - Link Road south		ONE HOUR	✓	0	100.000
3 - Site Access west		ONE HOUR	✓	0	100.000
4 - Link Road north		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.00	0.00	0.0	A	0	0
2 - Link Road south	0.00	0.00	0.0	A	0	0
3 - Site Access west	0.00	0.00	0.0	A	0	0
4 - Link Road north	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

2026 Employment, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	0	100.000
2 - Link Road south		ONE HOUR	✓	0	100.000
3 - Site Access west		ONE HOUR	✓	0	100.000
4 - Link Road north		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.00	0.00	0.0	A	0	0
2 - Link Road south	0.00	0.00	0.0	A	0	0
3 - Site Access west	0.00	0.00	0.0	A	0	0
4 - Link Road north	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	0	1388	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	0	1483	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	0	0	0	1353	0.000	0	0	0.0	0.0	0.000	A
4 - Link Road north	0	0	0	1439	0.000	0	0	0.0	0.0	0.000	A

2026 Phase 1 (Without Link Road), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.73	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	0	100.000
2 - Link Road south		ONE HOUR	✓	0	100.000
3 - Site Access west		ONE HOUR	✓	58	100.000
4 - Link Road north		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	58
	4 - Link Road north	0	0	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.00	0.00	0.0	A	0	0
2 - Link Road south	0.00	0.00	0.0	A	0	0
3 - Site Access west	0.05	2.79	0.0	A	53	80
4 - Link Road north	0.01	2.53	0.0	A	15	22

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	12	1381	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	12	1475	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	44	11	0	1353	0.032	44	12	0.0	0.0	2.748	A
4 - Link Road north	12	3	0	1439	0.008	12	44	0.0	0.0	2.521	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	14	1380	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	14	1474	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	52	13	0	1353	0.039	52	14	0.0	0.0	2.766	A
4 - Link Road north	14	4	0	1439	0.010	14	52	0.0	0.0	2.526	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	18	1378	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	18	1472	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	64	16	0	1353	0.047	64	18	0.0	0.0	2.791	A
4 - Link Road north	18	4	0	1439	0.012	18	64	0.0	0.0	2.531	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	18	1378	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	18	1472	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	64	16	0	1353	0.047	64	18	0.0	0.0	2.791	A
4 - Link Road north	18	4	0	1439	0.012	18	64	0.0	0.0	2.531	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	14	1380	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	14	1474	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	52	13	0	1353	0.039	52	14	0.0	0.0	2.768	A
4 - Link Road north	14	4	0	1439	0.010	14	52	0.0	0.0	2.528	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	12	1381	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	12	1475	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	44	11	0	1353	0.032	44	12	0.0	0.0	2.750	A
4 - Link Road north	12	3	0	1439	0.008	12	44	0.0	0.0	2.523	A

2026 Phase 1 (Without Link Road), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	0	100.000
2 - Link Road south		ONE HOUR	✓	0	100.000
3 - Site Access west		ONE HOUR	✓	35	100.000
4 - Link Road north		ONE HOUR	✓	61	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	35
	4 - Link Road north	0	0	61	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	0
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.00	0.00	0.0	A	0	0
2 - Link Road south	0.00	0.00	0.0	A	0	0
3 - Site Access west	0.03	2.74	0.0	A	32	48
4 - Link Road north	0.05	2.62	0.0	A	56	84

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	46	1362	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	46	1455	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	26	7	0	1353	0.019	26	46	0.0	0.0	2.712	A
4 - Link Road north	46	11	0	1439	0.032	46	26	0.0	0.0	2.583	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	55	1357	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	55	1450	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	31	8	0	1353	0.023	31	55	0.0	0.0	2.722	A
4 - Link Road north	55	14	0	1439	0.038	55	31	0.0	0.0	2.599	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	67	1350	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	67	1443	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	39	10	0	1353	0.028	39	67	0.0	0.0	2.737	A
4 - Link Road north	67	17	0	1439	0.047	67	39	0.0	0.0	2.623	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	67	1350	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	67	1443	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	39	10	0	1353	0.028	39	67	0.0	0.0	2.737	A
4 - Link Road north	67	17	0	1439	0.047	67	39	0.0	0.0	2.623	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	55	1357	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	55	1450	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	31	8	0	1353	0.023	31	55	0.0	0.0	2.722	A
4 - Link Road north	55	14	0	1439	0.038	55	31	0.0	0.0	2.602	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	46	1362	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	0	0	46	1455	0.000	0	0	0.0	0.0	0.000	A
3 - Site Access west	26	7	0	1353	0.019	26	46	0.0	0.0	2.712	A
4 - Link Road north	46	11	0	1439	0.032	46	26	0.0	0.0	2.585	A

2026 Phase 1 (With Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.80	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	0	100.000
2 - Link Road south		ONE HOUR	✓	434	100.000
3 - Site Access west		ONE HOUR	✓	58	100.000
4 - Link Road north		ONE HOUR	✓	414	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	6	428
	3 - Site Access west	0	22	0	36
	4 - Link Road north	0	404	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	5
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.00	0.00	0.0	A	0	0
2 - Link Road south	0.32	3.78	0.5	A	398	597
3 - Site Access west	0.06	3.51	0.1	A	53	80
4 - Link Road north	0.32	3.86	0.5	A	380	570

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	327	1203	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	327	82	8	1478	0.221	326	320	0.0	0.3	3.274	A
3 - Site Access west	44	11	321	1172	0.037	44	12	0.0	0.0	3.188	A
4 - Link Road north	312	78	17	1430	0.218	311	348	0.0	0.3	3.339	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	392	1166	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	390	98	9	1477	0.264	390	383	0.3	0.4	3.473	A
3 - Site Access west	52	13	384	1137	0.046	52	14	0.0	0.0	3.318	A
4 - Link Road north	372	93	20	1428	0.261	372	417	0.3	0.4	3.542	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	480	1116	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	478	119	11	1476	0.324	477	469	0.4	0.5	3.780	A
3 - Site Access west	64	16	471	1088	0.059	64	18	0.0	0.1	3.513	A
4 - Link Road north	456	114	24	1425	0.320	455	510	0.4	0.5	3.854	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	480	1116	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	478	119	11	1476	0.324	478	469	0.5	0.5	3.783	A
3 - Site Access west	64	16	471	1088	0.059	64	18	0.1	0.1	3.514	A
4 - Link Road north	456	114	24	1425	0.320	456	511	0.5	0.5	3.857	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	392	1165	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	390	98	9	1477	0.264	391	383	0.5	0.4	3.479	A
3 - Site Access west	52	13	385	1136	0.046	52	14	0.1	0.0	3.322	A
4 - Link Road north	372	93	20	1428	0.261	373	418	0.5	0.4	3.545	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	329	1202	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	327	82	8	1478	0.221	327	321	0.4	0.3	3.284	A
3 - Site Access west	44	11	323	1172	0.037	44	12	0.0	0.0	3.193	A
4 - Link Road north	312	78	17	1430	0.218	312	350	0.4	0.3	3.346	A

2026 Phase 1 (With Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.74	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	0	100.000
2 - Link Road south		ONE HOUR	✓	357	100.000
3 - Site Access west		ONE HOUR	✓	35	100.000
4 - Link Road north		ONE HOUR	✓	687	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	23	334
	3 - Site Access west	0	13	0	22
	4 - Link Road north	0	649	38	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	5
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.00	0.00	0.0	A	0	0
2 - Link Road south	0.27	3.54	0.4	A	328	491
3 - Site Access west	0.03	3.25	0.0	A	32	48
4 - Link Road north	0.53	5.44	1.1	A	630	946

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	525	1090	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	269	67	28	1466	0.183	268	496	0.0	0.2	3.146	A
3 - Site Access west	26	7	251	1212	0.022	26	46	0.0	0.0	3.035	A
4 - Link Road north	517	129	10	1434	0.361	515	267	0.0	0.6	3.983	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	629	1032	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	321	80	34	1462	0.219	321	594	0.2	0.3	3.300	A
3 - Site Access west	31	8	300	1184	0.027	31	55	0.0	0.0	3.122	A
4 - Link Road north	618	154	12	1433	0.431	617	320	0.6	0.8	4.493	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	769	952	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	393	98	42	1458	0.270	393	727	0.3	0.4	3.538	A
3 - Site Access west	39	10	367	1146	0.034	39	67	0.0	0.0	3.248	A
4 - Link Road north	756	189	14	1431	0.529	755	392	0.8	1.1	5.413	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	771	951	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	393	98	42	1458	0.270	393	729	0.4	0.4	3.538	A
3 - Site Access west	39	10	368	1146	0.034	39	67	0.0	0.0	3.249	A
4 - Link Road north	756	189	14	1431	0.529	756	392	1.1	1.1	5.436	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	631	1030	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	321	80	34	1462	0.219	321	596	0.4	0.3	3.305	A
3 - Site Access west	31	8	301	1184	0.027	31	55	0.0	0.0	3.123	A
4 - Link Road north	618	154	12	1433	0.431	619	320	1.1	0.8	4.516	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	0	0	528	1089	0.000	0	0	0.0	0.0	0.000	A
2 - Link Road south	269	67	29	1466	0.183	269	499	0.3	0.2	3.151	A
3 - Site Access west	26	7	252	1212	0.022	26	46	0.0	0.0	3.039	A
4 - Link Road north	517	129	10	1434	0.361	518	268	0.8	0.6	4.009	A

2033 Full Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.19	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	176	100.000
2 - Link Road south		ONE HOUR	✓	490	100.000
3 - Site Access west		ONE HOUR	✓	63	100.000
4 - Link Road north		ONE HOUR	✓	456	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	58	0	118
	2 - Link Road south	16	0	6	468
	3 - Site Access west	18	17	0	28
	4 - Link Road north	34	411	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	5
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.17	3.91	0.2	A	162	242
2 - Link Road south	0.39	4.39	0.7	A	450	674
3 - Site Access west	0.07	3.95	0.1	A	58	87
4 - Link Road north	0.36	4.12	0.6	A	418	628

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	133	33	329	1201	0.110	132	51	0.0	0.1	3.364	A
2 - Link Road south	369	92	97	1425	0.259	367	364	0.0	0.4	3.562	A
3 - Site Access west	47	12	451	1099	0.043	47	13	0.0	0.0	3.422	A
4 - Link Road north	343	86	38	1417	0.242	342	460	0.0	0.3	3.463	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	158	40	394	1164	0.136	158	61	0.1	0.2	3.576	A
2 - Link Road south	440	110	116	1414	0.312	440	437	0.4	0.5	3.872	A
3 - Site Access west	57	14	541	1049	0.054	57	15	0.0	0.1	3.627	A
4 - Link Road north	410	102	46	1413	0.290	410	551	0.3	0.4	3.717	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	194	48	483	1114	0.174	194	75	0.2	0.2	3.909	A
2 - Link Road south	540	135	142	1398	0.386	539	534	0.5	0.7	4.385	A
3 - Site Access west	69	17	662	980	0.071	69	19	0.1	0.1	3.951	A
4 - Link Road north	502	126	56	1407	0.357	501	675	0.4	0.6	4.115	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	194	48	483	1114	0.174	194	75	0.2	0.2	3.912	A
2 - Link Road south	540	135	142	1398	0.386	539	535	0.7	0.7	4.393	A
3 - Site Access west	69	17	663	980	0.071	69	19	0.1	0.1	3.953	A
4 - Link Road north	502	126	56	1407	0.357	502	676	0.6	0.6	4.120	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	158	40	395	1164	0.136	158	61	0.2	0.2	3.583	A
2 - Link Road south	440	110	116	1413	0.312	441	438	0.7	0.5	3.883	A
3 - Site Access west	57	14	542	1048	0.054	57	15	0.1	0.1	3.634	A
4 - Link Road north	410	102	46	1413	0.290	411	553	0.6	0.4	3.721	A

09:15 - 09:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	133	33	331	1200	0.110	133	51	0.2	0.1	3.371	A
2 - Link Road south	369	92	97	1425	0.259	369	366	0.5	0.4	3.574	A
3 - Site Access west	47	12	454	1098	0.043	47	13	0.1	0.0	3.429	A
4 - Link Road north	343	86	38	1417	0.242	344	463	0.4	0.3	3.474	A

2033 Full Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.35	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.35	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access east		ONE HOUR	✓	93	100.000
2 - Link Road south		ONE HOUR	✓	449	100.000
3 - Site Access west		ONE HOUR	✓	37	100.000
4 - Link Road north		ONE HOUR	✓	845	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	35	0	58
	2 - Link Road south	60	0	24	365
	3 - Site Access west	0	14	0	23
	4 - Link Road north	100	705	40	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access east	2 - Link Road south	3 - Site Access west	4 - Link Road north
From	1 - Site Access east	0	0	0	0
	2 - Link Road south	0	0	0	4
	3 - Site Access west	0	0	0	0
	4 - Link Road north	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Site Access east	0.11	4.43	0.1	A	85	128
2 - Link Road south	0.35	4.02	0.6	A	412	618
3 - Site Access west	0.04	3.55	0.0	A	34	51
4 - Link Road north	0.67	7.91	2.0	A	775	1163

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	70	18	568	1066	0.066	70	120	0.0	0.1	3.615	A
2 - Link Road south	338	85	73	1439	0.235	337	565	0.0	0.3	3.369	A
3 - Site Access west	28	7	362	1149	0.024	28	48	0.0	0.0	3.209	A
4 - Link Road north	636	159	56	1407	0.452	633	335	0.0	0.8	4.706	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	84	21	681	1002	0.083	84	144	0.1	0.1	3.920	A
2 - Link Road south	404	101	88	1430	0.282	403	677	0.3	0.4	3.619	A
3 - Site Access west	33	8	434	1109	0.030	33	57	0.0	0.0	3.346	A
4 - Link Road north	760	190	66	1401	0.542	758	401	0.8	1.2	5.680	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	102	26	833	916	0.112	102	176	0.1	0.1	4.426	A
2 - Link Road south	494	124	108	1418	0.349	494	827	0.4	0.5	4.016	A
3 - Site Access west	41	10	531	1054	0.039	41	70	0.0	0.0	3.551	A
4 - Link Road north	930	233	81	1392	0.668	927	490	1.2	2.0	7.810	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	102	26	836	914	0.112	102	176	0.1	0.1	4.435	A
2 - Link Road south	494	124	108	1418	0.349	494	830	0.5	0.6	4.022	A
3 - Site Access west	41	10	532	1054	0.039	41	70	0.0	0.0	3.552	A
4 - Link Road north	930	233	81	1392	0.668	930	491	2.0	2.0	7.914	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	84	21	685	999	0.084	84	144	0.1	0.1	3.933	A
2 - Link Road south	404	101	88	1430	0.282	404	681	0.6	0.4	3.624	A
3 - Site Access west	33	8	435	1108	0.030	33	58	0.0	0.0	3.348	A
4 - Link Road north	760	190	67	1401	0.542	763	402	2.0	1.2	5.763	A

18:15 - 18:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access east	70	18	573	1063	0.066	70	121	0.1	0.1	3.627	A
2 - Link Road south	338	85	74	1439	0.235	338	569	0.4	0.3	3.380	A
3 - Site Access west	28	7	364	1148	0.024	28	48	0.0	0.0	3.215	A
4 - Link Road north	636	159	56	1407	0.452	638	336	1.2	0.8	4.764	A

Appendix J-4

Junctions 10 Output – Internal Roundabout South

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: 2023-11-03 Internal South Rbt.j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Internal South Rbt
Report generation date: 09/11/2023 11:27:01

»2026 Residential Phase 1a, AM
»2026 Residential Phase 1a, PM
»2033 Full Residential, AM
»2033 Full Residential, PM
»2026 Employment, AM
»2026 Employment, PM
»2026 Phase 1 (With Link Road), AM
»2026 Phase 1 (With Link Road), PM
»2033 Full Development, AM
»2033 Full Development, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2026 Residential Phase 1a					
Arm 1	0.0	0.00	0.00	0.0	0.00	0.00
Arm 2	0.0	0.00	0.00	0.0	0.00	0.00
Arm 3	0.0	0.00	0.00	0.0	0.00	0.00
Arm 4	0.0	0.00	0.00	0.0	0.00	0.00
	2033 Full Residential					
Arm 1	0.2	3.90	0.16	0.1	4.37	0.10
Arm 2	0.4	3.39	0.31	0.5	3.44	0.32
Arm 3	0.0	3.48	0.03	0.0	3.41	0.02
Arm 4	0.4	3.18	0.27	1.1	4.84	0.51
	2026 Employment					
Arm 1	0.0	0.00	0.00	0.0	0.00	0.00
Arm 2	0.0	0.00	0.00	0.0	0.00	0.00
Arm 3	0.0	0.00	0.00	0.0	0.00	0.00
Arm 4	0.0	0.00	0.00	0.0	0.00	0.00
	2026 Phase 1 (With Link Road)					
Arm 1	0.0	0.00	0.00	0.0	0.00	0.00
Arm 2	0.4	3.40	0.30	0.3	3.16	0.25
Arm 3	0.0	0.00	0.00	0.0	0.00	0.00
Arm 4	0.4	3.28	0.29	0.8	4.18	0.45
	2033 Full Development					
Arm 1	0.2	4.19	0.17	0.1	4.51	0.10
Arm 2	0.5	3.66	0.34	0.6	3.83	0.38
Arm 3	0.0	3.58	0.03	0.0	3.59	0.02
Arm 4	0.5	3.62	0.34	1.2	5.23	0.54

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

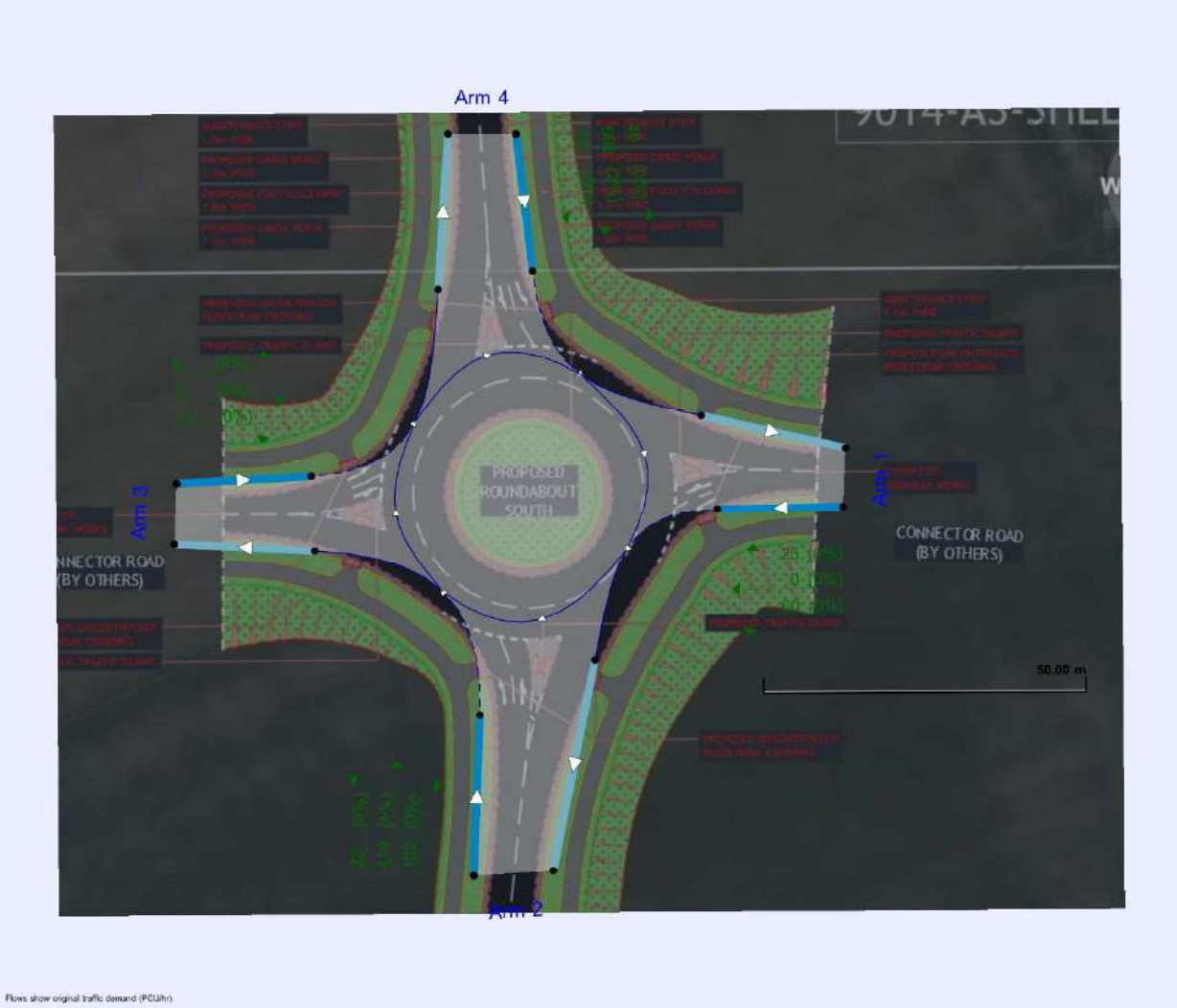
File summary

File Description

Title	Internal Roundabout (South)
Location	
Site number	
Date	06/11/2023
Version	
Status	(new file)
Identifier	
Client	Strata Sterling Barnsley West Ltd
Jobnumber	3062
Enumerator	Fore Consulting Limited
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓
D3	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓
D4	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓
D5	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓
D7	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D8	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D9	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓
D10	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2026 Residential Phase 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

Arms

Arms

Arm	Name	Description	No give-way line
1	Site Access east		
2	Link Road south		
3	Site Access west		
4	Link Road north		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	2.99	6.04	6.7	20.0	46.0	15.5		
2	3.62	7.45	7.3	20.0	46.0	18.3		
3	3.02	6.05	8.2	15.0	46.0	20.1		
4	3.69	7.34	7.7	23.0	46.0	22.4		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.570	1344
2	0.615	1590
3	0.564	1361
4	0.616	1609

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	0	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	0	100.000
4		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.00	0.00	0.0	A	0	0
2	0.00	0.00	0.0	A	0	0
3	0.00	0.00	0.0	A	0	0
4	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

2026 Residential Phase 1a, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	0	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	0	100.000
4		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.00	0.00	0.0	A	0	0
2	0.00	0.00	0.0	A	0	0
3	0.00	0.00	0.0	A	0	0
4	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

2033 Full Residential, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.39	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	162	100.000
2		ONE HOUR	✓	435	100.000
3		ONE HOUR	✓	32	100.000
4		ONE HOUR	✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	121	0	41
	2	35	0	6	394
	3	9	16	0	7
	4	12	370	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	2
	3	0	0	0	0
	4	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.16	3.90	0.2	A	149	223
2	0.31	3.39	0.4	A	399	599
3	0.03	3.48	0.0	A	29	44
4	0.27	3.18	0.4	A	353	530

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	122	30	292	1178	0.104	122	42	0.0	0.1	3.405	A
2	327	82	33	1570	0.209	326	380	0.0	0.3	2.944	A
3	24	6	353	1162	0.021	24	7	0.0	0.0	3.162	A
4	290	72	45	1581	0.183	289	332	0.0	0.2	2.811	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	36	349	1145	0.127	146	50	0.1	0.1	3.600	A
2	391	98	40	1566	0.250	391	455	0.3	0.3	3.118	A
3	29	7	422	1123	0.026	29	8	0.0	0.0	3.288	A
4	346	87	54	1576	0.220	346	397	0.2	0.3	2.955	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	178	45	428	1100	0.162	178	62	0.1	0.2	3.902	A
2	479	120	48	1561	0.307	478	558	0.3	0.4	3.385	A
3	35	9	517	1070	0.033	35	10	0.0	0.0	3.479	A
4	424	106	66	1568	0.270	424	486	0.3	0.4	3.175	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	178	45	428	1100	0.162	178	62	0.2	0.2	3.904	A
2	479	120	48	1560	0.307	479	558	0.4	0.4	3.387	A
3	35	9	517	1069	0.033	35	10	0.0	0.0	3.480	A
4	424	106	66	1568	0.270	424	487	0.4	0.4	3.175	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	36	350	1145	0.127	146	50	0.2	0.1	3.603	A
2	391	98	40	1566	0.250	391	456	0.4	0.3	3.121	A
3	29	7	423	1123	0.026	29	8	0.0	0.0	3.292	A
4	346	87	54	1576	0.220	346	398	0.4	0.3	2.957	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	122	30	293	1177	0.104	122	42	0.1	0.1	3.411	A
2	327	82	33	1570	0.209	328	382	0.3	0.3	2.950	A
3	24	6	354	1162	0.021	24	7	0.0	0.0	3.166	A
4	290	72	45	1581	0.183	290	333	0.3	0.2	2.817	A

2033 Full Residential, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.29	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	85	100.000
2		ONE HOUR	✓	460	100.000
3		ONE HOUR	✓	18	100.000
4		ONE HOUR	✓	715	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	60	0	25
	2	102	0	23	335
	3	0	13	0	5
	4	46	659	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	2
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.10	4.37	0.1	A	78	117
2	0.32	3.44	0.5	A	422	633
3	0.02	3.41	0.0	A	17	25
4	0.51	4.84	1.1	A	656	984

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	64	16	511	1053	0.061	64	111	0.0	0.1	3.639	A
2	346	87	26	1574	0.220	345	549	0.0	0.3	2.969	A
3	14	3	347	1166	0.012	14	25	0.0	0.0	3.123	A
4	538	135	86	1556	0.346	536	274	0.0	0.5	3.523	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	76	19	612	995	0.077	76	133	0.1	0.1	3.917	A
2	414	103	31	1571	0.263	413	657	0.3	0.4	3.154	A
3	16	4	415	1127	0.014	16	30	0.0	0.0	3.239	A
4	643	161	103	1545	0.416	642	328	0.5	0.7	3.982	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	94	23	750	917	0.102	93	163	0.1	0.1	4.371	A
2	506	127	38	1567	0.323	506	805	0.4	0.5	3.441	A
3	20	5	508	1075	0.018	20	36	0.0	0.0	3.412	A
4	787	197	126	1531	0.514	786	401	0.7	1.0	4.823	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	94	23	751	916	0.102	94	163	0.1	0.1	4.375	A
2	506	127	39	1567	0.323	506	806	0.5	0.5	3.444	A
3	20	5	509	1074	0.018	20	36	0.0	0.0	3.412	A
4	787	197	127	1531	0.514	787	402	1.0	1.1	4.840	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	76	19	614	994	0.077	77	133	0.1	0.1	3.923	A
2	414	103	32	1571	0.263	414	659	0.5	0.4	3.159	A
3	16	4	416	1127	0.014	16	30	0.0	0.0	3.243	A
4	643	161	104	1545	0.416	644	329	1.1	0.7	4.001	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	64	16	514	1051	0.061	64	112	0.1	0.1	3.648	A
2	346	87	26	1574	0.220	347	552	0.4	0.3	2.975	A
3	14	3	348	1165	0.012	14	25	0.0	0.0	3.126	A
4	538	135	87	1555	0.346	539	275	0.7	0.5	3.546	A

2026 Employment, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	0	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	0	100.000
4		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.00	0.00	0.0	A	0	0
2	0.00	0.00	0.0	A	0	0
3	0.00	0.00	0.0	A	0	0
4	0.00	0.00	0.0	A	0	0

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

2026 Employment, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	0	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	0	100.000
4		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.00	0.00	0.0	A	0	0
2	0.00	0.00	0.0	A	0	0
3	0.00	0.00	0.0	A	0	0
4	0.00	0.00	0.0	A	0	0

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	0	1344	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1590	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1361	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1609	0.000	0	0	0.0	0.0	0.000	A

2026 Phase 1 (With Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.34	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.34	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	0	100.000
2		ONE HOUR	✓	434	100.000
3		ONE HOUR	✓	0	100.000
4		ONE HOUR	✓	426	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	434
	3	0	0	0	0
	4	0	426	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	5
	3	0	0	0	0
	4	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.00	0.00	0.0	A	0	0
2	0.30	3.40	0.4	A	398	597
3	0.00	0.00	0.0	A	0	0
4	0.29	3.28	0.4	A	391	586

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	320	1162	0.000	0	0	0.0	0.0	0.000	A
2	327	82	0	1590	0.205	326	320	0.0	0.3	2.986	A
3	0	0	326	1178	0.000	0	0	0.0	0.0	0.000	A
4	321	80	0	1609	0.199	320	326	0.0	0.3	2.901	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	383	1126	0.000	0	0	0.0	0.0	0.000	A
2	390	98	0	1590	0.245	390	383	0.3	0.3	3.148	A
3	0	0	390	1141	0.000	0	0	0.0	0.0	0.000	A
4	383	96	0	1609	0.238	383	390	0.3	0.3	3.053	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	469	1077	0.000	0	0	0.0	0.0	0.000	A
2	478	119	0	1590	0.300	477	469	0.3	0.4	3.394	A
3	0	0	477	1092	0.000	0	0	0.0	0.0	0.000	A
4	469	117	0	1609	0.292	469	477	0.3	0.4	3.283	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	469	1077	0.000	0	0	0.0	0.0	0.000	A
2	478	119	0	1590	0.300	478	469	0.4	0.4	3.397	A
3	0	0	478	1092	0.000	0	0	0.0	0.0	0.000	A
4	469	117	0	1609	0.292	469	478	0.4	0.4	3.283	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	383	1126	0.000	0	0	0.0	0.0	0.000	A
2	390	98	0	1590	0.245	391	383	0.4	0.3	3.151	A
3	0	0	391	1141	0.000	0	0	0.0	0.0	0.000	A
4	383	96	0	1609	0.238	383	391	0.4	0.3	3.055	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	321	1161	0.000	0	0	0.0	0.0	0.000	A
2	327	82	0	1590	0.205	327	321	0.3	0.3	2.994	A
3	0	0	327	1177	0.000	0	0	0.0	0.0	0.000	A
4	321	80	0	1609	0.199	321	327	0.3	0.3	2.909	A

2026 Phase 1 (With Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.82	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.82	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	0	100.000
2		ONE HOUR	✓	357	100.000
3		ONE HOUR	✓	0	100.000
4		ONE HOUR	✓	663	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	357
	3	0	0	0	0
	4	0	663	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	5
	3	0	0	0	0
	4	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.00	0.00	0.0	A	0	0
2	0.25	3.16	0.3	A	328	491
3	0.00	0.00	0.0	A	0	0
4	0.45	4.18	0.8	A	608	913

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	497	1061	0.000	0	0	0.0	0.0	0.000	A
2	269	67	0	1590	0.169	268	497	0.0	0.2	2.857	A
3	0	0	268	1210	0.000	0	0	0.0	0.0	0.000	A
4	499	125	0	1609	0.310	497	268	0.0	0.5	3.297	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	595	1005	0.000	0	0	0.0	0.0	0.000	A
2	321	80	0	1590	0.202	321	595	0.2	0.3	2.977	A
3	0	0	321	1180	0.000	0	0	0.0	0.0	0.000	A
4	596	149	0	1609	0.370	595	321	0.5	0.6	3.621	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	729	929	0.000	0	0	0.0	0.0	0.000	A
2	393	98	0	1590	0.247	393	729	0.3	0.3	3.156	A
3	0	0	393	1140	0.000	0	0	0.0	0.0	0.000	A
4	730	182	0	1609	0.454	729	393	0.6	0.8	4.169	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	730	928	0.000	0	0	0.0	0.0	0.000	A
2	393	98	0	1590	0.247	393	730	0.3	0.3	3.156	A
3	0	0	393	1140	0.000	0	0	0.0	0.0	0.000	A
4	730	182	0	1609	0.454	730	393	0.8	0.8	4.177	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	597	1004	0.000	0	0	0.0	0.0	0.000	A
2	321	80	0	1590	0.202	321	597	0.3	0.3	2.981	A
3	0	0	321	1180	0.000	0	0	0.0	0.0	0.000	A
4	596	149	0	1609	0.370	597	321	0.8	0.6	3.631	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	0	0	500	1060	0.000	0	0	0.0	0.0	0.000	A
2	269	67	0	1590	0.169	269	500	0.3	0.2	2.862	A
3	0	0	269	1210	0.000	0	0	0.0	0.0	0.000	A
4	499	125	0	1609	0.310	500	269	0.6	0.5	3.311	A

2033 Full Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.71	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	162	100.000
2		ONE HOUR	✓	483	100.000
3		ONE HOUR	✓	32	100.000
4		ONE HOUR	✓	486	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	121	0	41
	2	35	0	6	442
	3	9	16	0	7
	4	12	471	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	5
	3	0	0	0	0
	4	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.17	4.19	0.2	A	149	223
2	0.34	3.66	0.5	A	443	665
3	0.03	3.58	0.0	A	29	44
4	0.34	3.62	0.5	A	446	669

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	122	30	368	1135	0.107	121	42	0.0	0.1	3.550	A
2	364	91	33	1570	0.232	362	456	0.0	0.3	3.114	A
3	24	6	389	1142	0.021	24	7	0.0	0.0	3.219	A
4	366	91	45	1581	0.231	365	368	0.0	0.3	3.071	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	36	440	1093	0.133	146	50	0.1	0.2	3.797	A
2	434	109	40	1566	0.277	434	546	0.3	0.4	3.324	A
3	29	7	465	1099	0.026	29	8	0.0	0.0	3.363	A
4	437	109	54	1576	0.277	437	440	0.3	0.4	3.283	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	178	45	539	1037	0.172	178	62	0.2	0.2	4.189	A
2	532	133	48	1561	0.341	531	669	0.4	0.5	3.655	A
3	35	9	570	1040	0.034	35	10	0.0	0.0	3.582	A
4	535	134	66	1568	0.341	535	539	0.4	0.5	3.615	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	178	45	539	1037	0.172	178	62	0.2	0.2	4.193	A
2	532	133	48	1560	0.341	532	669	0.5	0.5	3.658	A
3	35	9	570	1040	0.034	35	10	0.0	0.0	3.583	A
4	535	134	66	1568	0.341	535	539	0.5	0.5	3.618	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	36	441	1093	0.133	146	50	0.2	0.2	3.800	A
2	434	109	40	1566	0.277	435	547	0.5	0.4	3.328	A
3	29	7	466	1098	0.026	29	8	0.0	0.0	3.368	A
4	437	109	54	1576	0.277	437	441	0.5	0.4	3.288	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	122	30	369	1134	0.108	122	42	0.2	0.1	3.560	A
2	364	91	33	1570	0.232	364	458	0.4	0.3	3.121	A
3	24	6	390	1141	0.021	24	7	0.0	0.0	3.222	A
4	366	91	45	1581	0.231	366	369	0.4	0.3	3.080	A

2033 Full Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.62	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	85	100.000
2		ONE HOUR	✓	544	100.000
3		ONE HOUR	✓	18	100.000
4		ONE HOUR	✓	754	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	60	0	25
	2	102	0	23	419
	3	0	13	0	5
	4	46	698	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	4
	3	0	0	0	0
	4	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.10	4.51	0.1	A	78	117
2	0.38	3.83	0.6	A	499	749
3	0.02	3.59	0.0	A	17	25
4	0.54	5.23	1.2	A	692	1038

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	64	16	541	1036	0.062	64	111	0.0	0.1	3.701	A
2	410	102	26	1574	0.260	408	578	0.0	0.4	3.177	A
3	14	3	410	1130	0.012	14	25	0.0	0.0	3.223	A
4	568	142	86	1556	0.365	565	337	0.0	0.6	3.695	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	76	19	647	975	0.078	76	133	0.1	0.1	4.004	A
2	489	122	31	1571	0.311	489	692	0.4	0.5	3.428	A
3	16	4	490	1085	0.015	16	30	0.0	0.0	3.368	A
4	678	169	103	1545	0.439	677	403	0.6	0.8	4.220	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	94	23	792	893	0.105	93	163	0.1	0.1	4.504	A
2	599	150	38	1567	0.382	598	847	0.5	0.6	3.829	A
3	20	5	600	1023	0.019	20	36	0.0	0.0	3.589	A
4	830	208	126	1531	0.542	829	494	0.8	1.2	5.209	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	94	23	794	892	0.105	94	163	0.1	0.1	4.509	A
2	599	150	39	1567	0.382	599	849	0.6	0.6	3.832	A
3	20	5	601	1022	0.019	20	36	0.0	0.0	3.590	A
4	830	208	127	1531	0.542	830	494	1.2	1.2	5.232	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	76	19	650	974	0.078	77	133	0.1	0.1	4.013	A
2	489	122	32	1571	0.311	490	695	0.6	0.5	3.432	A
3	16	4	492	1084	0.015	16	30	0.0	0.0	3.370	A
4	678	169	104	1545	0.439	679	404	1.2	0.8	4.243	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	64	16	544	1034	0.062	64	112	0.1	0.1	3.711	A
2	410	102	26	1574	0.260	410	581	0.5	0.4	3.189	A
3	14	3	411	1129	0.012	14	25	0.0	0.0	3.226	A
4	568	142	87	1555	0.365	569	338	0.8	0.6	3.720	A

Appendix J-5

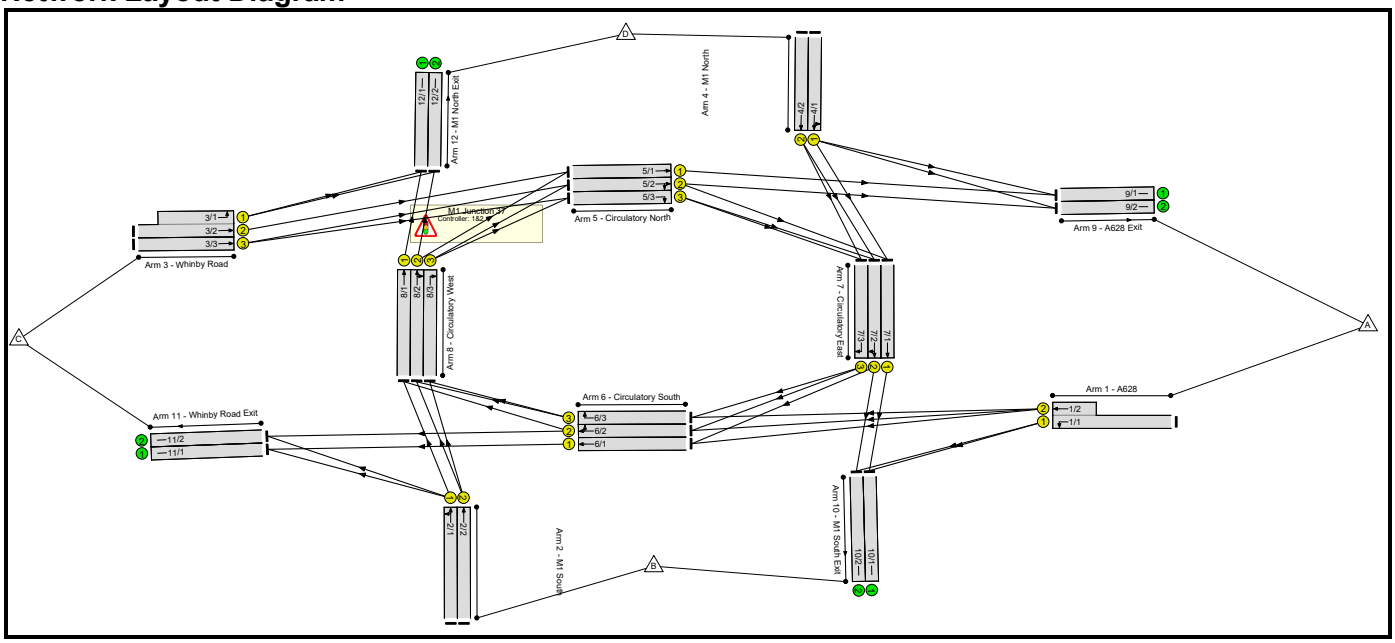
LinSig Output – M1 Junction 37

Full Input Data And Results

User and Project Details

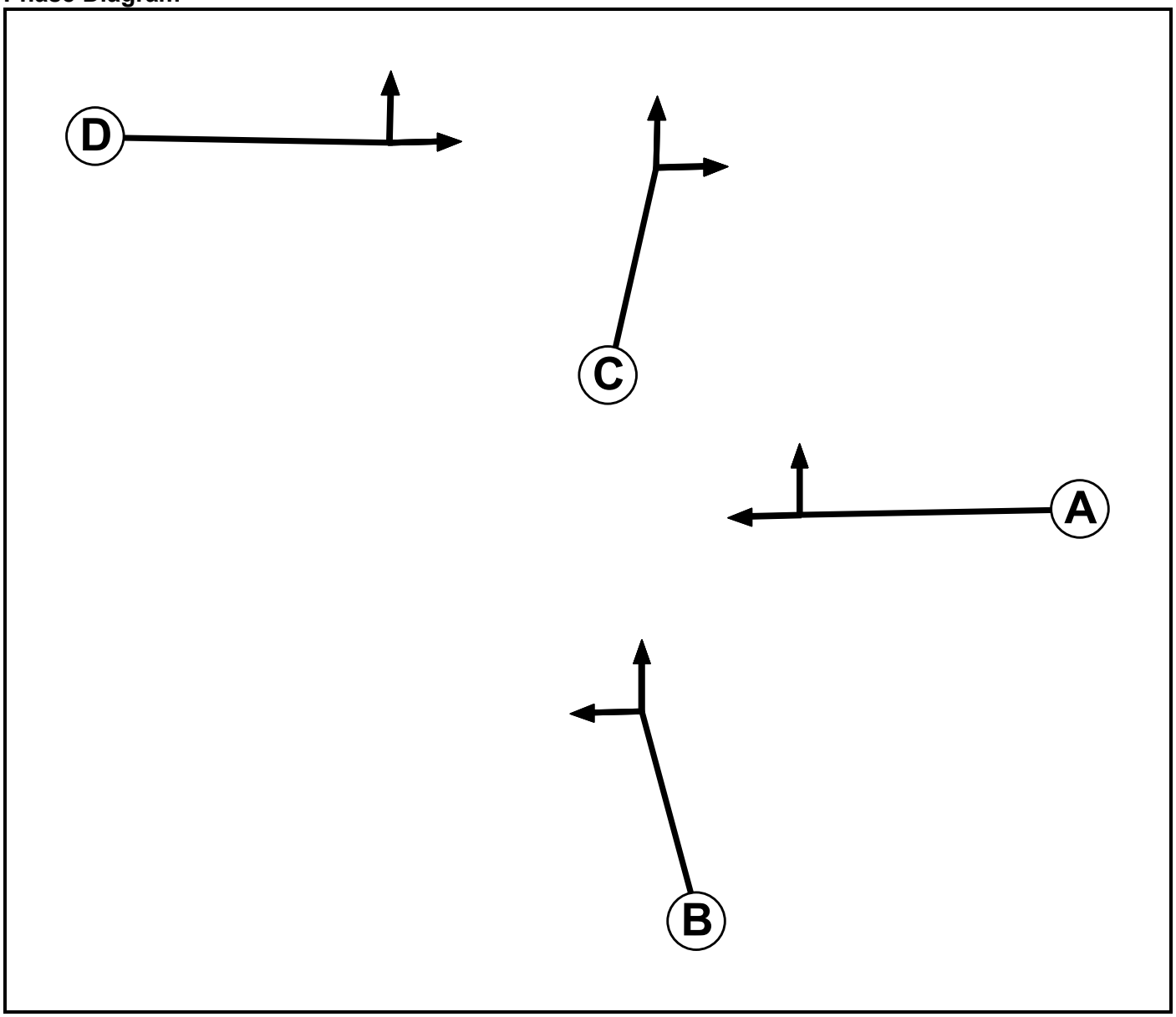
Project:	**M1 J37 - Dodworth Roundabout**
Title:	
Location:	
Additional detail:	
File name:	2023-01-18_M1 J37 Base 2022_VALIDATED.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



C1 - Northbound Gyratory

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7

Full Input Data And Results

Phase Intergreens Matrix

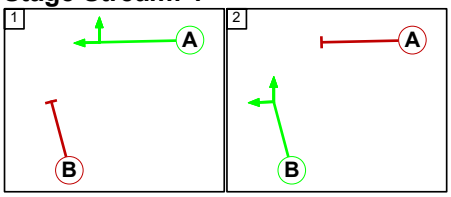
Terminating Phase	Starting Phase			
	A	B	C	D
A		5	-	-
B	7		-	-
C	-	-		5
D	-	-	5	

Phases in Stage

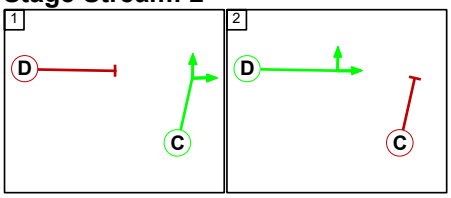
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage	
	1	2
1		5
2	7	

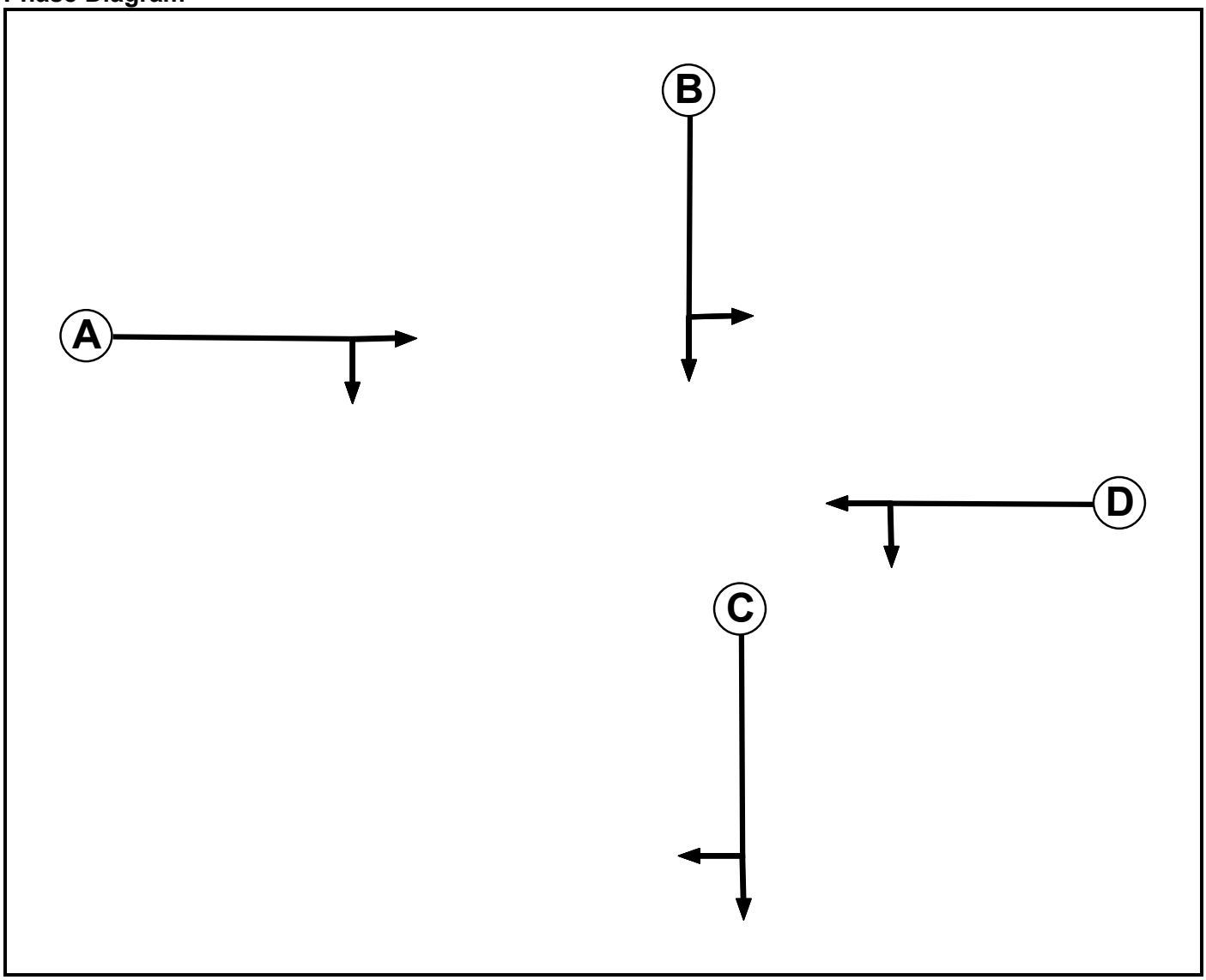
Full Input Data And Results

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	5	

C2 - Southbound Gyratory

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	2		7	7
B	Traffic	2		7	7
C	Traffic	1		7	7
D	Traffic	1		7	7

Full Input Data And Results

Phase Intergreens Matrix

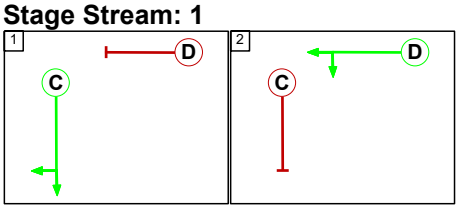
Terminating Phase	Starting Phase			
	A	B	C	D
A		5	-	-
B	8		-	-
C	-	-		5
D	-	-	5	

Phases in Stage

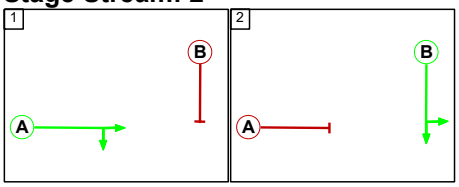
Stream	Stage No.	Phases in Stage
1	1	C
1	2	D
2	1	A
2	2	B

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage		
		1	2
	1		5
	2	5	

Full Input Data And Results

Stage Stream: 2

	To Stage		
		1	2
From Stage	1		5
	2	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: M1 Junction 37
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: M1 Junction 37												
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 (A628)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 10 Left	40.00
1/2 (A628)	U	D	2	3	4.3	User	3830	-	-	-	-	-
2/1 (M1 South)	U	B	2	3	130.4	Geom	-	3.30	0.00	Y	Arm 8 Ahead Arm 11 Left	60.00 40.00
2/2 (M1 South)	U	B	2	3	130.4	Geom	-	3.00	0.00	Y	Arm 8 Ahead	45.00
3/1 (Whinby Road)	U	D	2	3	8.7	Geom	-	3.00	0.00	Y	Arm 12 Left	15.00
3/2 (Whinby Road)	U	D	2	3	25.2	Geom	-	3.00	0.00	Y	Arm 5 Ahead	18.00
3/3 (Whinby Road)	U	D	2	3	25.2	Geom	-	3.00	0.00	Y	Arm 5 Ahead	20.00
4/1 (M1 North)	U	B	2	3	95.7	Geom	-	3.00	0.00	Y	Arm 7 Ahead Arm 9 Left	60.00 50.00
4/2 (M1 North)	U	B	2	3	95.7	Geom	-	3.00	0.00	Y	Arm 7 Ahead	60.00
5/1 (Circulatory North)	U	A	2	3	22.6	Geom	-	3.30	0.00	Y	Arm 9 Ahead	60.00
5/2 (Circulatory North)	U	A	2	3	22.6	Geom	-	3.30	0.00	Y	Arm 7 Right Arm 9 Ahead	60.00 60.00
5/3 (Circulatory North)	U	A	2	3	22.6	Geom	-	3.30	0.00	Y	Arm 7 Right	60.00
6/1 (Circulatory South)	U	A	2	3	25.2	Geom	-	3.30	0.00	Y	Arm 11 Ahead	80.00
6/2 (Circulatory South)	U	A	2	3	25.2	Geom	-	3.30	0.00	Y	Arm 8 Right Arm 11 Ahead	50.00 80.00
6/3 (Circulatory South)	U	A	2	3	25.2	Geom	-	3.30	0.00	Y	Arm 8 Right	50.00
7/1 (Circulatory East)	U	C	2	3	12.2	Geom	-	3.00	0.00	Y	Arm 10 Ahead	60.00

Full Input Data And Results

7/2 (Circulatory East)	U	C	2	3	12.2	Geom	-	3.00	0.00	Y	Arm 6 Right	50.00
											Arm 10 Ahead	60.00
7/3 (Circulatory East)	U	C	2	3	12.2	Geom	-	3.00	0.00	Y	Arm 6 Right	50.00
8/1 (Circulatory West)	U	C	2	3	12.2	Geom	-	3.30	0.00	Y	Arm 12 Ahead	60.00
8/2 (Circulatory West)	U	C	2	3	12.2	Geom	-	3.30	0.00	Y	Arm 5 Right	60.00
											Arm 12 Ahead	60.00
8/3 (Circulatory West)	U	C	2	3	12.2	Geom	-	3.30	0.00	Y	Arm 5 Right	60.00
9/1 (A628 Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/2 (A628 Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (M1 South Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/2 (M1 South Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1 (Whinby Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2 (Whinby Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (M1 North Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/2 (M1 North Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: M1 Junction 37		
Lane	**Custom Occupancy per Flow Group (PCU)**	
	2022 Base AM	**2022 Base PM**
1/2 (A628 Lane 2)	5.0	3.0

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base AM'	07:15	08:15	01:00	
2: '2022 Base PM'	16:45	17:45	01:00	

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

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	578	185	398	1161
	B	490	0	401	1	892
	C	287	598	5	435	1325
	D	348	1	224	0	573
	Tot.	1125	1177	815	834	3951

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2022 Base AM
Junction: M1 Junction 37	
1/1 (with short)	1161(In) 578(Out)
1/2 (short)	583
2/1	402
2/2	490
3/1 (short)	435
3/2 (with short)	722(In) 287(Out)
3/3	603
4/1	349
4/2	224
5/1	446
5/2	649
5/3	285
6/1	256
6/2	357
6/3	199
7/1	319
7/2	351
7/3	158
8/1	200
8/2	358
8/3	331
9/1	620
9/2	505
10/1	608
10/2	569
11/1	456
11/2	359
12/1	417
12/2	417

Full Input Data And Results

Lane Saturation Flows

Junction: M1 Junction 37								
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 (A628)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A628 Lane 2)	This lane uses a directly entered Saturation Flow						3830	3830
2/1 (M1 South)	3.30	0.00	Y	Arm 8 Ahead	60.00	0.2 %	1875	1875
				Arm 11 Left	40.00	99.8 %		
2/2 (M1 South)	3.00	0.00	Y	Arm 8 Ahead	45.00	100.0 %	1853	1853
3/1 (Whinby Road)	3.00	0.00	Y	Arm 12 Left	15.00	100.0 %	1741	1741
3/2 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	18.00	100.0 %	1768	1768
3/3 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	20.00	100.0 %	1781	1781
4/1 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	0.3 %	1859	1859
				Arm 9 Left	50.00	99.7 %		
4/2 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	100.0 %	1868	1868
5/1 (Circulatory North)	3.30	0.00	Y	Arm 9 Ahead	60.00	100.0 %	1898	1898
5/2 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	49.0 %	1898	1898
				Arm 9 Ahead	60.00	51.0 %		
5/3 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	100.0 %	1898	1898
6/1 (Circulatory South)	3.30	0.00	Y	Arm 11 Ahead	80.00	100.0 %	1909	1909
6/2 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	55.7 %	1898	1898
				Arm 11 Ahead	80.00	44.3 %		
6/3 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	100.0 %	1888	1888
7/1 (Circulatory East)	3.00	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1868	1868
7/2 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	20.2 %	1866	1866
				Arm 10 Ahead	60.00	79.8 %		
7/3 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	100.0 %	1859	1859
8/1 (Circulatory West)	3.30	0.00	Y	Arm 12 Ahead	60.00	100.0 %	1898	1898
8/2 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	44.4 %	1898	1898
				Arm 12 Ahead	60.00	55.6 %		
8/3 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	100.0 %	1898	1898
9/1 (A628 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

9/2 (A628 Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/1 (M1 South Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (M1 South Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (Whinby Road Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (Whinby Road Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (M1 North Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (M1 North Exit Lane 2)	Infinite Saturation Flow	Inf	Inf

Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	503	357	277	1137
	B	612	0	618	2	1232
	C	342	432	6	228	1008
	D	479	6	492	0	977
	Tot.	1433	941	1473	507	4354

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2022 Base PM
Junction: M1 Junction 37	
1/1 (with short)	1137(In) 503(Out)
1/2 (short)	634
2/1	620
2/2	612
3/1 (short)	228
3/2 (with short)	570(In) 342(Out)
3/3	438
4/1	485
4/2	492
5/1	570
5/2	564
5/3	258
6/1	462
6/2	454
6/3	216
7/1	186
7/2	393
7/3	357
8/1	63
8/2	444
8/3	384
9/1	809
9/2	624
10/1	437
10/2	504
11/1	771
11/2	702
12/1	177
12/2	330

Full Input Data And Results

Lane Saturation Flows

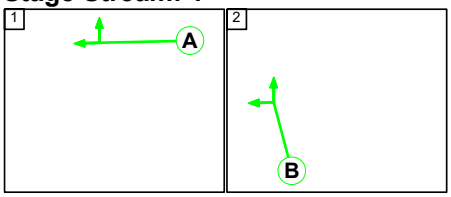
Junction: M1 Junction 37								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A628)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A628 Lane 2)	This lane uses a directly entered Saturation Flow						3830	3830
2/1 (M1 South)	3.30	0.00	Y	Arm 8 Ahead	60.00	0.3 %	1875	1875
				Arm 11 Left	40.00	99.7 %		
2/2 (M1 South)	3.00	0.00	Y	Arm 8 Ahead	45.00	100.0 %	1853	1853
3/1 (Whinby Road)	3.00	0.00	Y	Arm 12 Left	15.00	100.0 %	1741	1741
3/2 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	18.00	100.0 %	1768	1768
3/3 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	20.00	100.0 %	1781	1781
4/1 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	1.2 %	1859	1859
				Arm 9 Left	50.00	98.8 %		
4/2 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	100.0 %	1868	1868
5/1 (Circulatory North)	3.30	0.00	Y	Arm 9 Ahead	60.00	100.0 %	1898	1898
5/2 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	31.9 %	1898	1898
				Arm 9 Ahead	60.00	68.1 %		
5/3 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	100.0 %	1898	1898
6/1 (Circulatory South)	3.30	0.00	Y	Arm 11 Ahead	80.00	100.0 %	1909	1909
6/2 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	13.4 %	1906	1906
				Arm 11 Ahead	80.00	86.6 %		
6/3 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	100.0 %	1888	1888
7/1 (Circulatory East)	3.00	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1868	1868
7/2 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	35.9 %	1865	1865
				Arm 10 Ahead	60.00	64.1 %		
7/3 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	100.0 %	1859	1859
8/1 (Circulatory West)	3.30	0.00	Y	Arm 12 Ahead	60.00	100.0 %	1898	1898
8/2 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	51.4 %	1898	1898
				Arm 12 Ahead	60.00	48.6 %		
8/3 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	100.0 %	1898	1898
9/1 (A628 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

9/2 (A628 Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/1 (M1 South Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (M1 South Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (Whinby Road Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (Whinby Road Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (M1 North Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (M1 North Exit Lane 2)	Infinite Saturation Flow	Inf	Inf

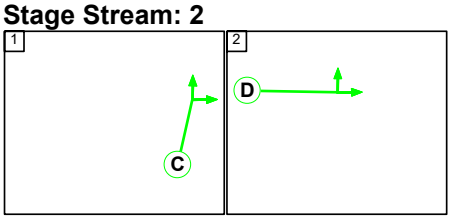
Scenario 1: '2022 Base AM' (FG1: '2022 Base AM', Plan 1: 'Network Control Plan 1')
C1 - Northbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

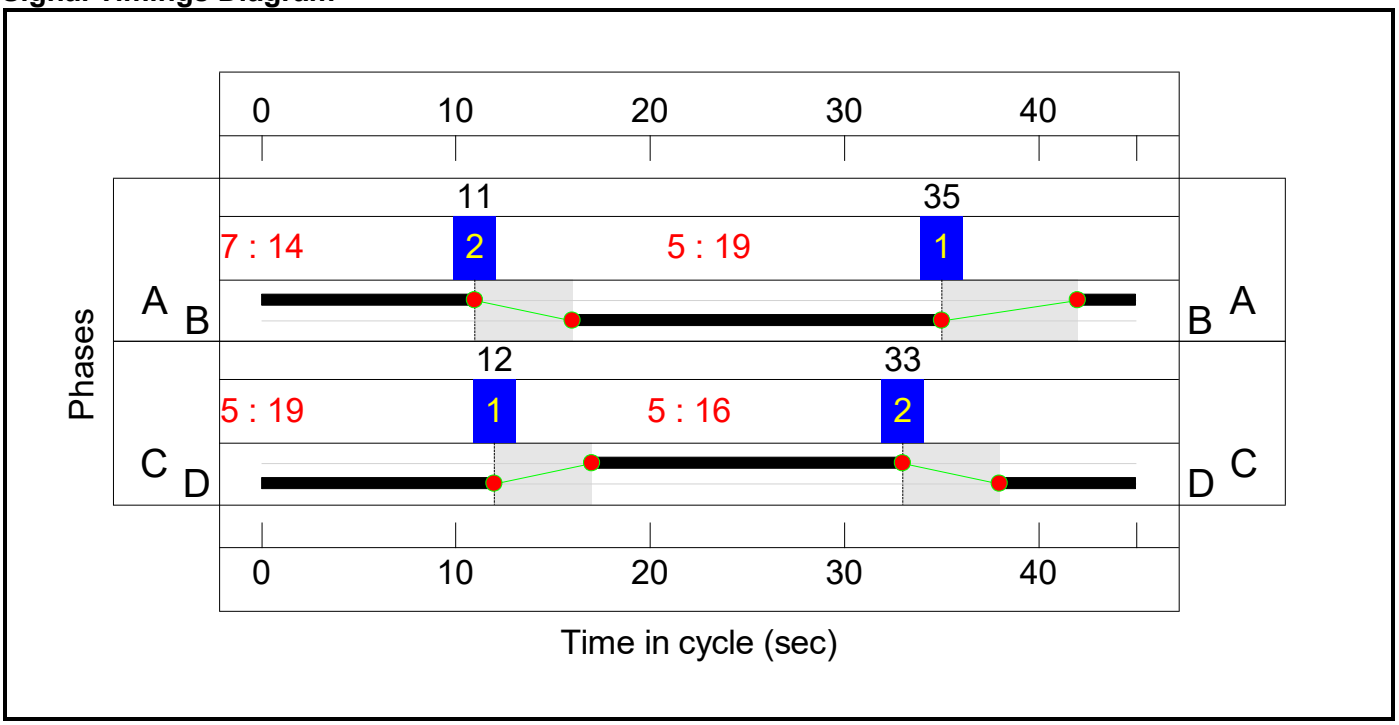
Stage	1	2
Duration	14	19
Change Point	35	11

Stage Stream: 2

Stage	1	2
Duration	16	19
Change Point	12	33

Full Input Data And Results

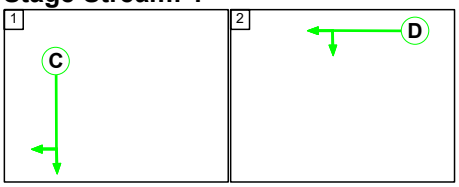
Signal Timings Diagram



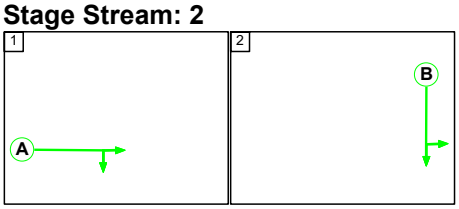
C2 - Southbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

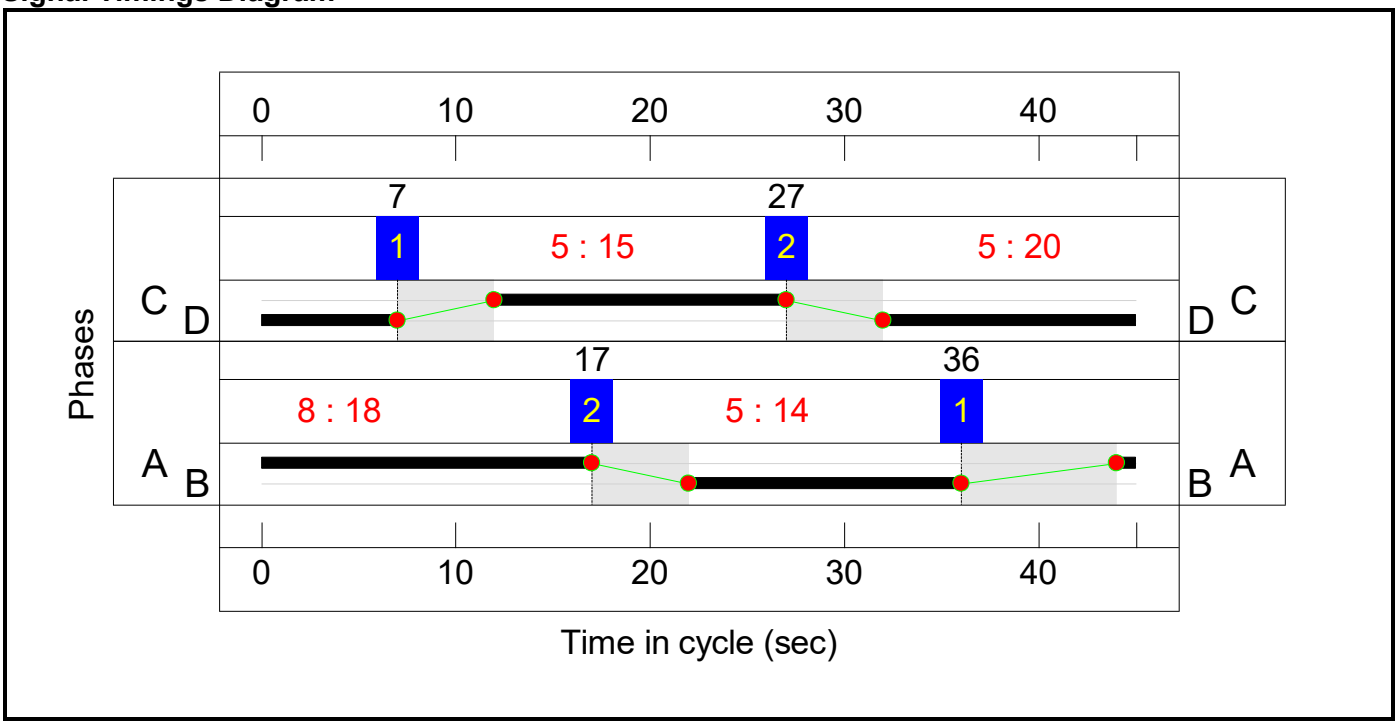
Stage	1	2
Duration	15	20
Change Point	7	27

Stage Stream: 2

Stage	1	2
Duration	18	14
Change Point	36	17

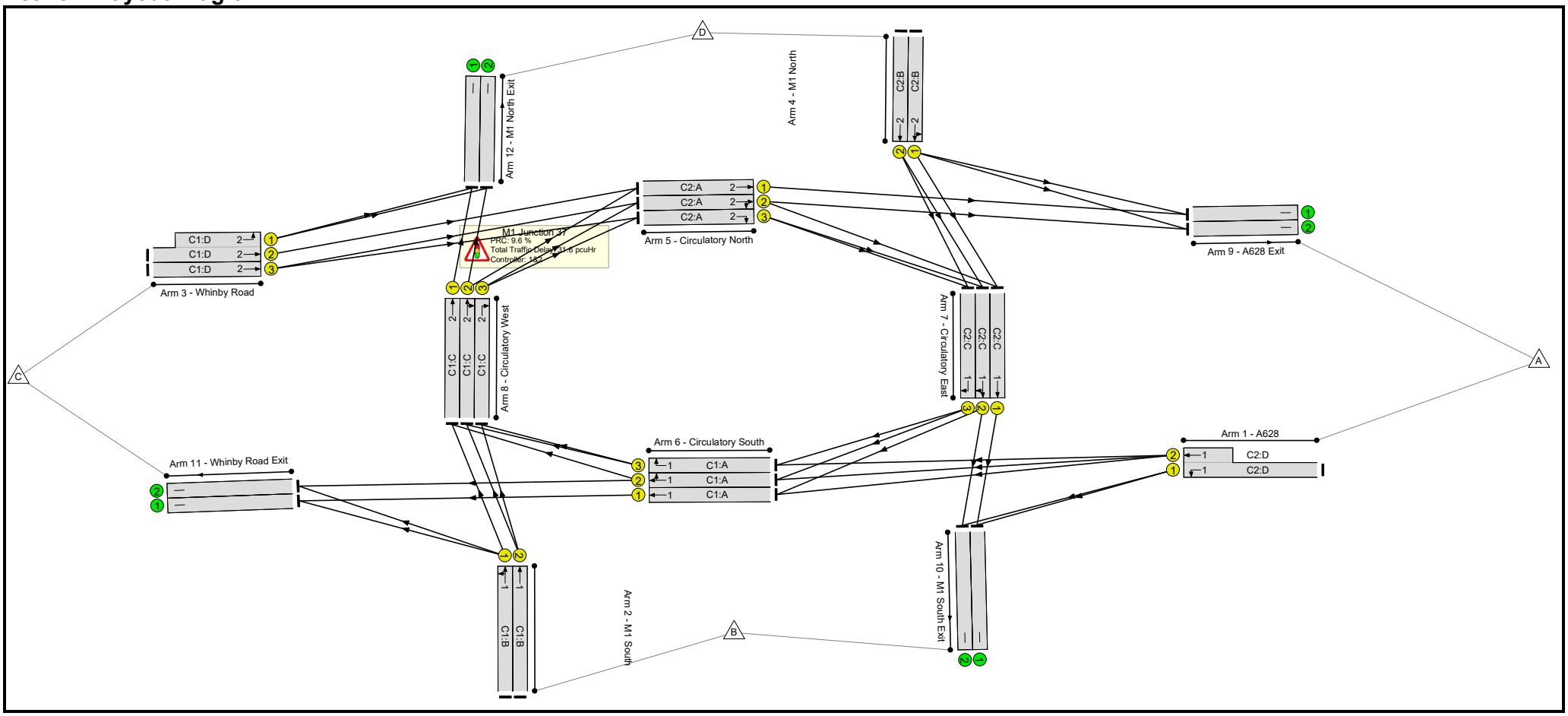
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.1%**
M1 Junction 37	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.1%**
1/1+1/2	A628 Ahead Left	U	2:1	N/A	C2:D		1	20	-	1161	1846:3830	704+710	82.1 : 82.1%
2/1	M1 South Ahead Left	U	1:1	N/A	C1:B		1	19	-	402	1875	833	48.2%
2/2	M1 South Ahead	U	1:1	N/A	C1:B		1	19	-	490	1853	824	59.5%
3/2+3/1	Whinby Road Ahead Left	U	1:2	N/A	C1:D		1	19	-	722	1768:1741	497+753	57.8 : 57.8%
3/3	Whinby Road Ahead	U	1:2	N/A	C1:D		1	19	-	603	1781	792	76.2%
4/1	M1 North Ahead Left	U	2:2	N/A	C2:B		1	14	-	349	1859	620	56.3%
4/2	M1 North Ahead	U	2:2	N/A	C2:B		1	14	-	224	1868	623	36.0%
5/1	Circulatory North Ahead	U	2:2	N/A	C2:A		1	18	-	446	1898	801	55.7%
5/2	Circulatory North Right Ahead	U	2:2	N/A	C2:A		1	18	-	649	1898	801	81.0%
5/3	Circulatory North Right	U	2:2	N/A	C2:A		1	18	-	285	1898	801	35.6%
6/1	Circulatory South Ahead	U	1:1	N/A	C1:A		1	14	-	256	1909	636	40.2%
6/2	Circulatory South Right Ahead	U	1:1	N/A	C1:A		1	14	-	357	1898	633	56.4%
6/3	Circulatory South Right	U	1:1	N/A	C1:A		1	14	-	199	1888	629	31.6%
7/1	Circulatory East Ahead	U	2:1	N/A	C2:C		1	15	-	319	1868	664	48.0%

Full Input Data And Results

7/2	Circulatory East Right Ahead	U	2:1	N/A	C2:C		1	15	-	351	1866	663	52.9%
7/3	Circulatory East Right	U	2:1	N/A	C2:C		1	15	-	158	1859	661	23.9%
8/1	Circulatory West Ahead	U	1:2	N/A	C1:C		1	16	-	200	1898	717	27.9%
8/2	Circulatory West Right Ahead	U	1:2	N/A	C1:C		1	16	-	358	1898	717	49.9%
8/3	Circulatory West Right	U	1:2	N/A	C1:C		1	16	-	331	1898	717	46.2%
9/1	A628 Exit	U	N/A	N/A	-		-	-	-	620	Inf	Inf	0.0%
9/2	A628 Exit	U	N/A	N/A	-		-	-	-	505	Inf	Inf	0.0%
10/1	M1 South Exit	U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
10/2	M1 South Exit	U	N/A	N/A	-		-	-	-	569	Inf	Inf	0.0%
11/1	Whinby Road Exit	U	N/A	N/A	-		-	-	-	456	Inf	Inf	0.0%
11/2	Whinby Road Exit	U	N/A	N/A	-		-	-	-	359	Inf	Inf	0.0%
12/1	M1 North Exit	U	N/A	N/A	-		-	-	-	417	Inf	Inf	0.0%
12/2	M1 North Exit	U	N/A	N/A	-		-	-	-	417	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**18.5**	**13.1**	**0.0**	**31.6**	**-**	**-**	**-**	**-**
M1 Junction 37	**-**	**-**	**0**	**0**	**0**	**18.5**	**13.1**	**0.0**	**31.6**	**-**	**-**	**-**	**-**
1/1+1/2	1161	1161	-	-	-	2.7	2.3	-	5.0	15.5	6.9	2.3	9.2
2/1	402	402	-	-	-	1.0	0.5	-	1.5	13.0	3.5	0.5	3.9
2/2	490	490	-	-	-	1.3	0.7	-	2.0	14.8	4.5	0.7	5.2
3/2+3/1	722	722	-	-	-	1.8	0.7	-	2.5	12.3	4.0	0.7	4.7
3/3	603	603	-	-	-	1.8	1.6	-	3.3	19.9	6.2	1.6	7.8
4/1	349	349	-	-	-	1.2	0.6	-	1.8	18.9	3.5	0.6	4.1
4/2	224	224	-	-	-	0.7	0.3	-	1.0	15.9	2.1	0.3	2.4
5/1	446	446	-	-	-	0.7	0.6	-	1.3	10.5	2.6	0.6	3.3
5/2	649	649	-	-	-	1.4	2.1	-	3.5	19.4	6.0	2.1	8.1
5/3	285	285	-	-	-	0.4	0.3	-	0.7	8.4	0.8	0.3	1.0
6/1	256	256	-	-	-	0.6	0.3	-	1.0	13.6	1.5	0.3	1.8
6/2	357	357	-	-	-	1.0	0.6	-	1.7	17.0	2.6	0.6	3.2
6/3	199	199	-	-	-	0.3	0.2	-	0.6	10.3	0.6	0.2	0.8
7/1	319	319	-	-	-	0.1	0.5	-	0.6	6.5	0.9	0.5	1.3
7/2	351	351	-	-	-	0.6	0.6	-	1.2	12.0	2.3	0.6	2.9
7/3	158	158	-	-	-	1.1	0.2	-	1.2	28.0	1.9	0.2	2.1
8/1	200	200	-	-	-	0.5	0.2	-	0.7	12.5	2.5	0.2	2.7
8/2	358	358	-	-	-	0.8	0.5	-	1.3	12.8	2.9	0.5	3.4
8/3	331	331	-	-	-	0.5	0.4	-	0.9	10.0	0.9	0.4	1.3
9/1	620	620	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	505	505	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	569	569	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	456	456	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

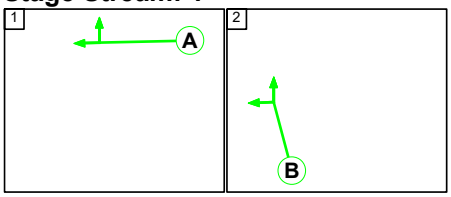
11/2	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	417	417	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	417	417	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 - Northbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	51.3	Total Delay for Signalled Lanes (pcuHr):	6.69	Cycle Time (s):	45
C1 - Northbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	18.1	Total Delay for Signalled Lanes (pcuHr):	8.68	Cycle Time (s):	45
C2 - Southbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	9.6	Total Delay for Signalled Lanes (pcuHr):	7.99	Cycle Time (s):	45
C2 - Southbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	11.1	Total Delay for Signalled Lanes (pcuHr):	8.28	Cycle Time (s):	45
	PRC Over All Lanes (%):	9.6	Total Delay Over All Lanes(pcuHr):	31.65		

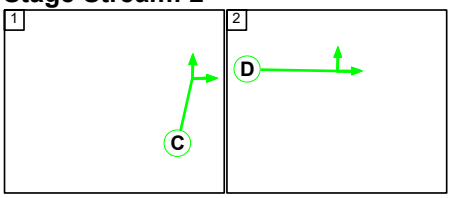
Full Input Data And Results
Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')
C1 - Northbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

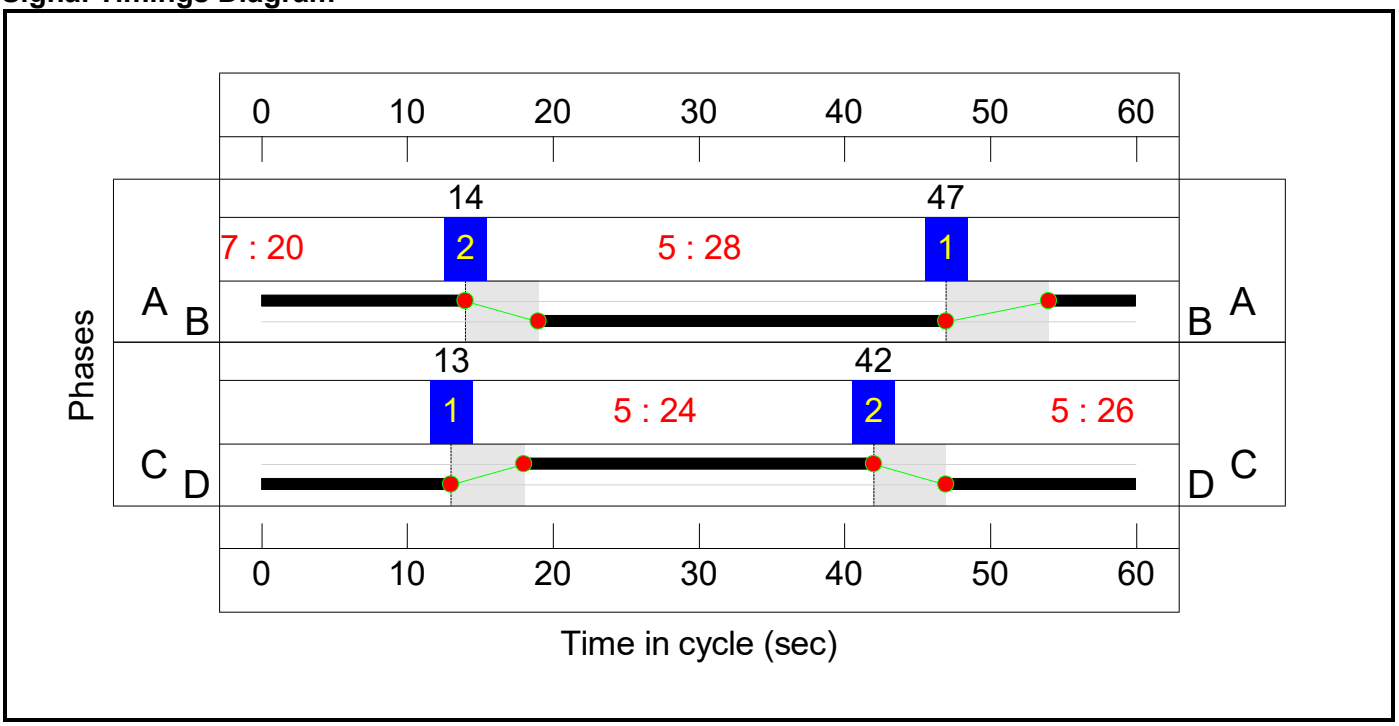
Stage Stream: 1

Stage	1	2
Duration	20	28
Change Point	47	14

Stage Stream: 2

Stage	1	2
Duration	24	26
Change Point	13	42

Signal Timings Diagram

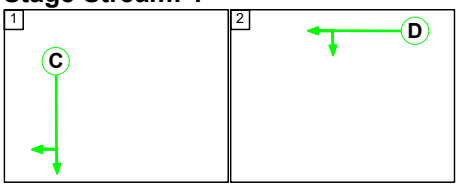


Full Input Data And Results

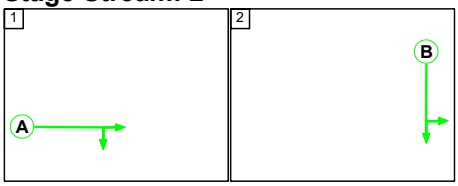
C2 - Southbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

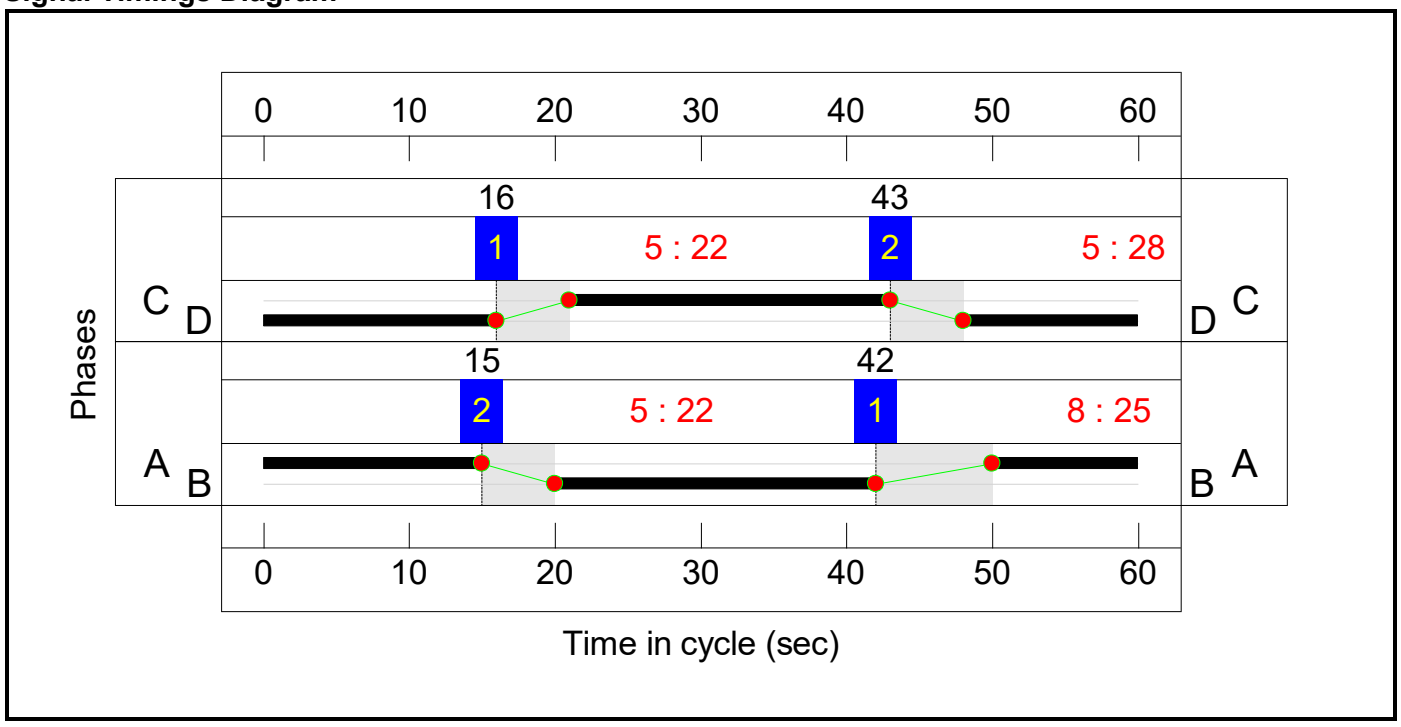
Stage Stream: 1

Stage	1	2
Duration	22	28
Change Point	16	43

Stage Stream: 2

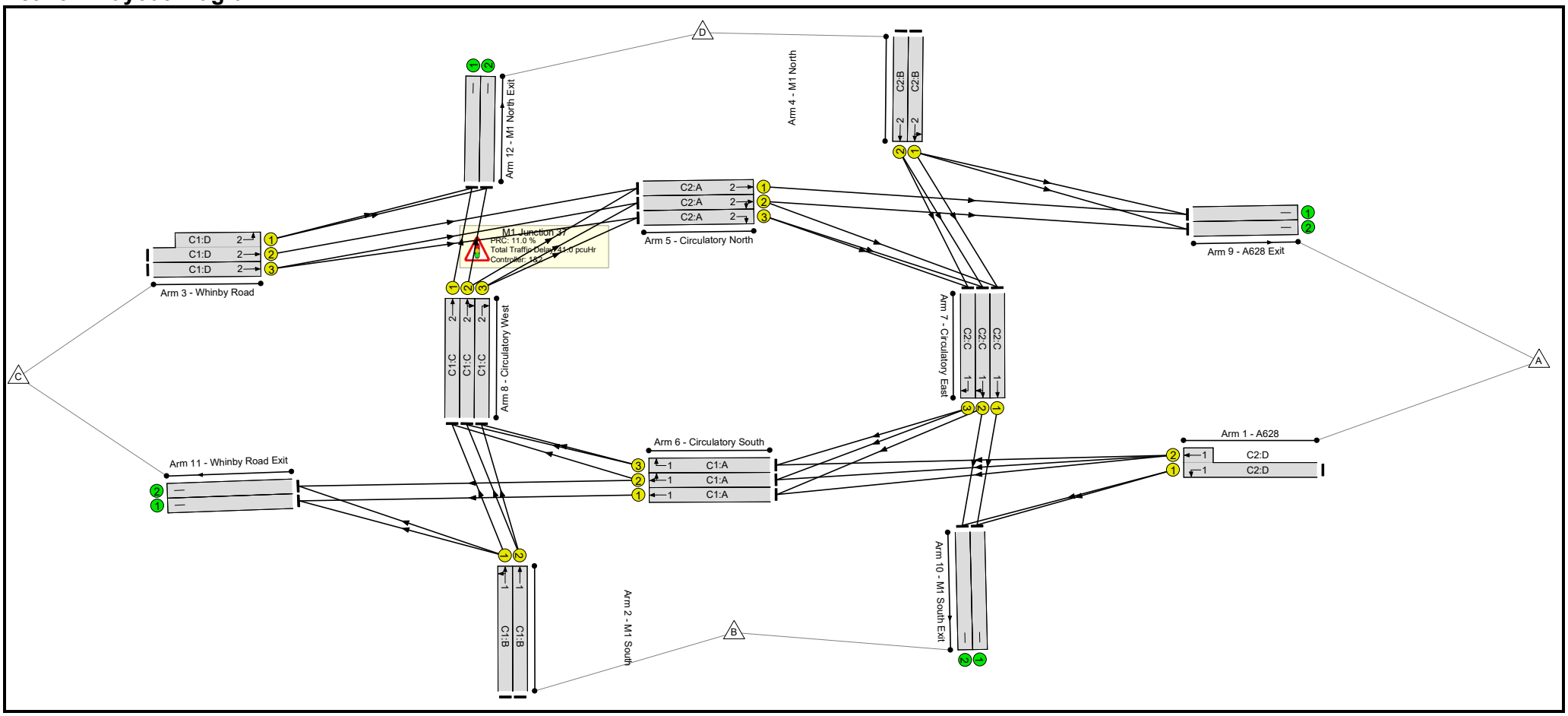
Stage	1	2
Duration	25	22
Change Point	42	15

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.1%**
M1 Junction 37	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.1%**
1/1+1/2	A628 Ahead Left	U	2:1	N/A	C2:D		1	28	-	1137	1846:3830	620+782	81.1 : 81.1%
2/1	M1 South Ahead Left	U	1:1	N/A	C1:B		1	28	-	620	1875	906	68.4%
2/2	M1 South Ahead	U	1:1	N/A	C1:B		1	28	-	612	1853	896	68.3%
3/2+3/1	Whinby Road Ahead Left	U	1:2	N/A	C1:D		1	26	-	570	1768:1741	705+470	48.5 : 48.5%
3/3	Whinby Road Ahead	U	1:2	N/A	C1:D		1	26	-	438	1781	801	54.7%
4/1	M1 North Ahead Left	U	2:2	N/A	C2:B		1	22	-	485	1859	713	68.1%
4/2	M1 North Ahead	U	2:2	N/A	C2:B		1	22	-	492	1868	716	68.7%
5/1	Circulatory North Ahead	U	2:2	N/A	C2:A		1	25	-	570	1898	822	69.3%
5/2	Circulatory North Right Ahead	U	2:2	N/A	C2:A		1	25	-	564	1898	822	68.6%
5/3	Circulatory North Right	U	2:2	N/A	C2:A		1	25	-	258	1898	822	31.4%
6/1	Circulatory South Ahead	U	1:1	N/A	C1:A		1	20	-	462	1909	668	69.1%
6/2	Circulatory South Right Ahead	U	1:1	N/A	C1:A		1	20	-	454	1906	667	68.1%
6/3	Circulatory South Right	U	1:1	N/A	C1:A		1	20	-	216	1888	661	32.7%
7/1	Circulatory East Ahead	U	2:1	N/A	C2:C		1	22	-	186	1868	716	26.0%

Full Input Data And Results

7/2	Circulatory East Right Ahead	U	2:1	N/A	C2:C		1	22	-	393	1865	715	55.0%
7/3	Circulatory East Right	U	2:1	N/A	C2:C		1	22	-	357	1859	713	50.1%
8/1	Circulatory West Ahead	U	1:2	N/A	C1:C		1	24	-	63	1898	791	8.0%
8/2	Circulatory West Right Ahead	U	1:2	N/A	C1:C		1	24	-	444	1898	791	56.1%
8/3	Circulatory West Right	U	1:2	N/A	C1:C		1	24	-	384	1898	791	48.6%
9/1	A628 Exit	U	N/A	N/A	-		-	-	-	809	Inf	Inf	0.0%
9/2	A628 Exit	U	N/A	N/A	-		-	-	-	624	Inf	Inf	0.0%
10/1	M1 South Exit	U	N/A	N/A	-		-	-	-	437	Inf	Inf	0.0%
10/2	M1 South Exit	U	N/A	N/A	-		-	-	-	504	Inf	Inf	0.0%
11/1	Whinby Road Exit	U	N/A	N/A	-		-	-	-	771	Inf	Inf	0.0%
11/2	Whinby Road Exit	U	N/A	N/A	-		-	-	-	702	Inf	Inf	0.0%
12/1	M1 North Exit	U	N/A	N/A	-		-	-	-	177	Inf	Inf	0.0%
12/2	M1 North Exit	U	N/A	N/A	-		-	-	-	330	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**26.2**	**14.7**	**0.0**	**41.0**	**-**	**-**	**-**	**-**
M1 Junction 37	**-**	**-**	**0**	**0**	**0**	**26.2**	**14.7**	**0.0**	**41.0**	**-**	**-**	**-**	**-**
1/1+1/2	1137	1137	-	-	-	3.5	2.1	-	5.6	17.9	11.8	2.1	13.9
2/1	620	620	-	-	-	2.1	1.1	-	3.1	18.2	7.9	1.1	9.0
2/2	612	612	-	-	-	2.0	1.1	-	3.1	18.3	7.8	1.1	8.9
3/2+3/1	570	570	-	-	-	1.7	0.5	-	2.2	13.9	3.8	0.5	4.3
3/3	438	438	-	-	-	1.5	0.6	-	2.1	17.0	5.2	0.6	5.8
4/1	485	485	-	-	-	2.1	1.1	-	3.1	23.3	6.7	1.1	7.8
4/2	492	492	-	-	-	2.1	1.1	-	3.2	23.4	6.8	1.1	7.9
5/1	570	570	-	-	-	1.2	1.1	-	2.3	14.8	4.8	1.1	6.0
5/2	564	564	-	-	-	1.6	1.1	-	2.7	17.4	8.0	1.1	9.0
5/3	258	258	-	-	-	0.4	0.2	-	0.6	8.6	0.8	0.2	1.0
6/1	462	462	-	-	-	1.5	1.1	-	2.6	20.0	4.2	1.1	5.3
6/2	454	454	-	-	-	1.5	1.1	-	2.6	20.6	7.1	1.1	8.1
6/3	216	216	-	-	-	0.7	0.2	-	0.9	15.3	1.2	0.2	1.5
7/1	186	186	-	-	-	0.7	0.2	-	0.8	16.1	3.0	0.2	3.2
7/2	393	393	-	-	-	1.2	0.6	-	1.8	16.8	4.8	0.6	5.4
7/3	357	357	-	-	-	0.4	0.5	-	0.9	9.2	0.8	0.5	1.3
8/1	63	63	-	-	-	0.1	0.0	-	0.2	10.6	0.9	0.0	1.0
8/2	444	444	-	-	-	1.2	0.6	-	1.8	14.6	4.4	0.6	5.1
8/3	384	384	-	-	-	0.7	0.5	-	1.2	10.9	1.4	0.5	1.9
9/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	624	624	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	437	437	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	504	504	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

11/2	702	702	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	177	177	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	330	330	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

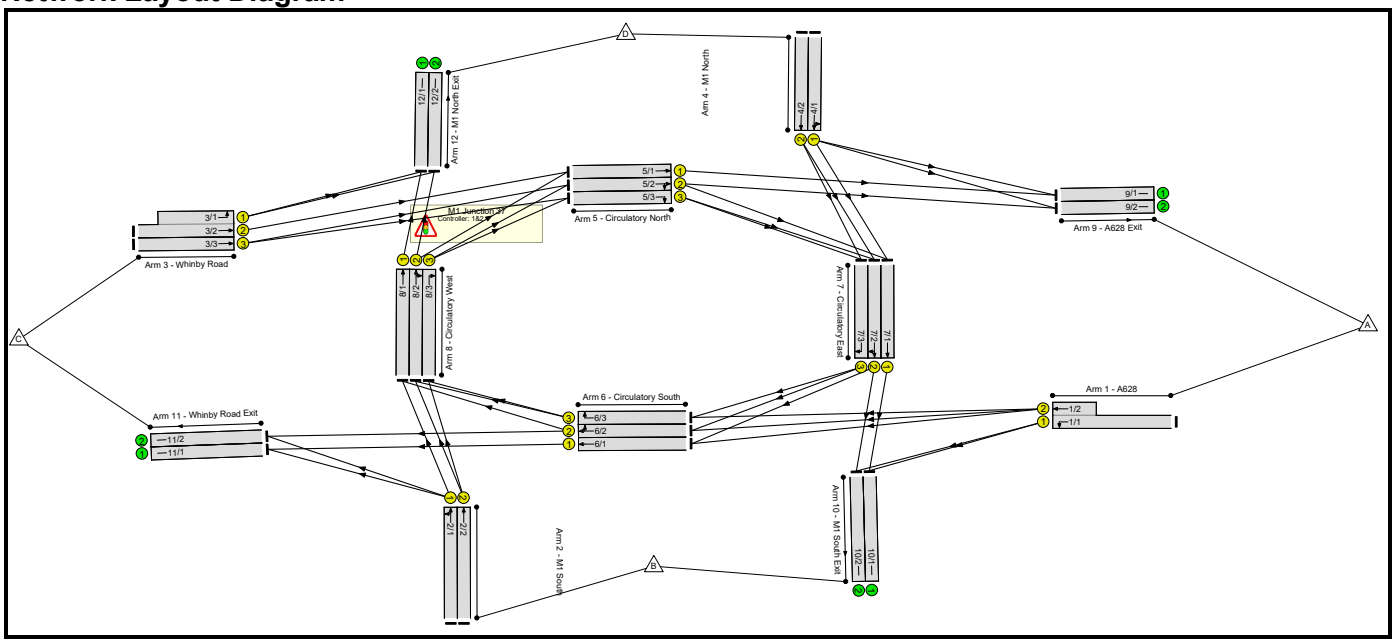
C1 - Northbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	30.2	Total Delay for Signalled Lanes (pcuHr):	12.32	Cycle Time (s):	60
C1 - Northbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	60.3	Total Delay for Signalled Lanes (pcuHr):	7.41	Cycle Time (s):	60
C2 - Southbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	11.0	Total Delay for Signalled Lanes (pcuHr):	9.21	Cycle Time (s):	60
C2 - Southbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	29.9	Total Delay for Signalled Lanes (pcuHr):	12.03	Cycle Time (s):	60
	PRC Over All Lanes (%):	11.0	Total Delay Over All Lanes(pcuHr):	40.97		

Full Input Data And Results

User and Project Details

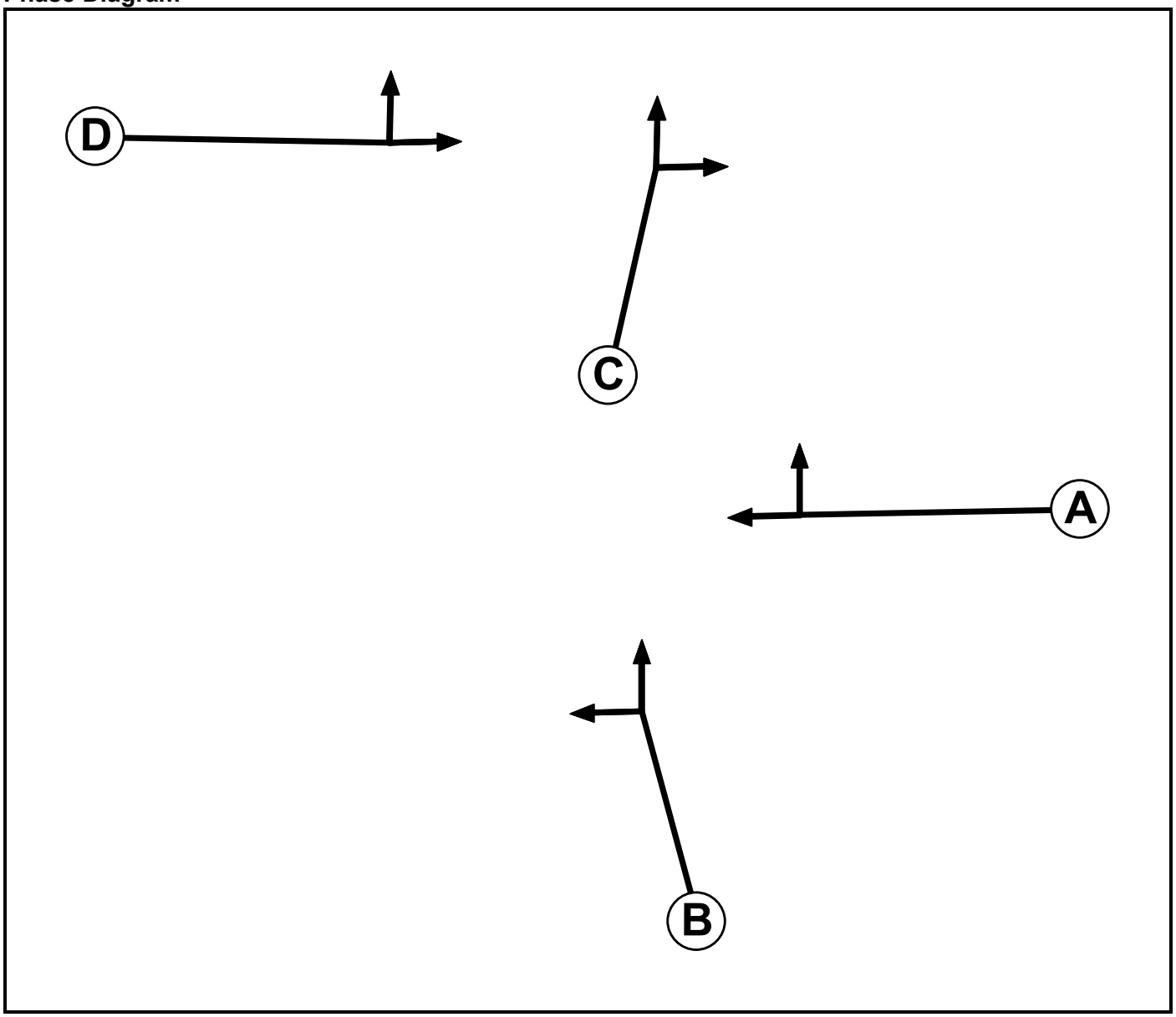
Project:	**M1 J37 - Dodworth Roundabout**
Title:	
Location:	
Additional detail:	
File name:	2023-10-12_M1 J37 Future Year Assessments - TN v6.0.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



C1 - Northbound Gyratory

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7

Full Input Data And Results

Phase Intergreens Matrix

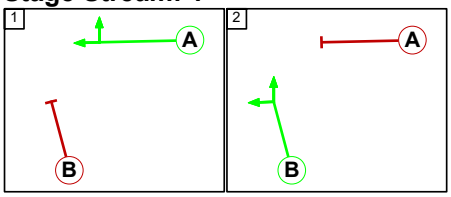
Terminating Phase	Starting Phase			
	A	B	C	D
A		5	-	-
B	7		-	-
C	-	-		5
D	-	-	5	

Phases in Stage

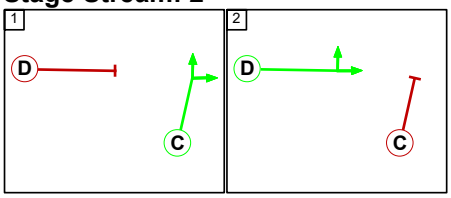
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage	
	1	2
1		5
2	7	

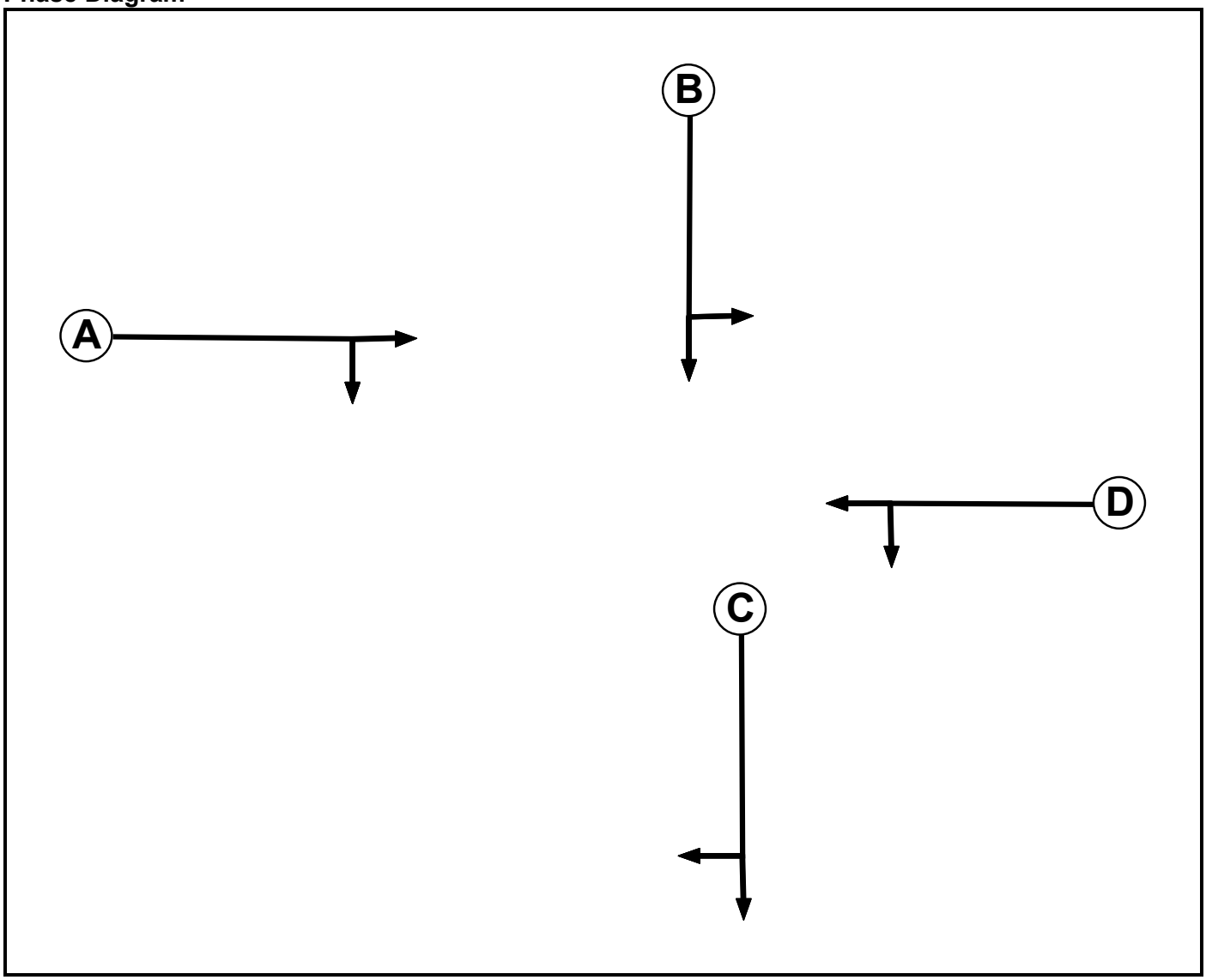
Full Input Data And Results

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	5	

C2 - Southbound Gyratory

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	2		7	7
B	Traffic	2		7	7
C	Traffic	1		7	7
D	Traffic	1		7	7

Full Input Data And Results

Phase Intergreens Matrix

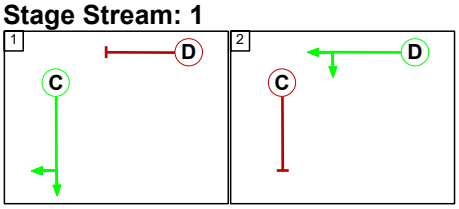
Terminating Phase	Starting Phase			
	A	B	C	D
A		5	-	-
B	8		-	-
C	-	-		5
D	-	-	5	

Phases in Stage

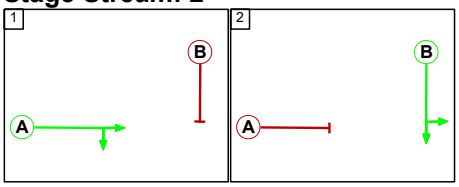
Stream	Stage No.	Phases in Stage
1	1	C
1	2	D
2	1	A
2	2	B

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage		
		1	2
	1		5
	2	5	

Full Input Data And Results

Stage Stream: 2

	To Stage		
		1	2
From Stage	1		5
	2	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: M1 Junction 37
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: M1 Junction 37												
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 (A628)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 10 Left	40.00
1/2 (A628)	U	D	2	3	4.3	User	3830	-	-	-	-	-
2/1 (M1 South)	U	B	2	3	130.4	Geom	-	3.30	0.00	Y	Arm 8 Ahead Arm 11 Left	60.00 40.00
2/2 (M1 South)	U	B	2	3	130.4	Geom	-	3.00	0.00	Y	Arm 8 Ahead	45.00
3/1 (Whinby Road)	U	D	2	3	8.7	Geom	-	3.00	0.00	Y	Arm 12 Left	15.00
3/2 (Whinby Road)	U	D	2	3	25.2	Geom	-	3.00	0.00	Y	Arm 5 Ahead	18.00
3/3 (Whinby Road)	U	D	2	3	25.2	Geom	-	3.00	0.00	Y	Arm 5 Ahead	20.00
4/1 (M1 North)	U	B	2	3	95.7	Geom	-	3.00	0.00	Y	Arm 7 Ahead Arm 9 Left	60.00 50.00
4/2 (M1 North)	U	B	2	3	95.7	Geom	-	3.00	0.00	Y	Arm 7 Ahead	60.00
5/1 (Circulatory North)	U	A	2	3	22.6	Geom	-	3.30	0.00	Y	Arm 9 Ahead	60.00
5/2 (Circulatory North)	U	A	2	3	22.6	Geom	-	3.30	0.00	Y	Arm 7 Right Arm 9 Ahead	60.00 60.00
5/3 (Circulatory North)	U	A	2	3	22.6	Geom	-	3.30	0.00	Y	Arm 7 Right	60.00
6/1 (Circulatory South)	U	A	2	3	25.2	Geom	-	3.30	0.00	Y	Arm 11 Ahead	80.00
6/2 (Circulatory South)	U	A	2	3	25.2	Geom	-	3.30	0.00	Y	Arm 8 Right Arm 11 Ahead	50.00 80.00
6/3 (Circulatory South)	U	A	2	3	25.2	Geom	-	3.30	0.00	Y	Arm 8 Right	50.00
7/1 (Circulatory East)	U	C	2	3	12.2	Geom	-	3.00	0.00	Y	Arm 10 Ahead	60.00

7/2 (Circulatory East)	U	C	2	3	12.2	Geom	-	3.00	0.00	Y	Arm 6 Right	50.00
											Arm 10 Ahead	60.00
7/3 (Circulatory East)	U	C	2	3	12.2	Geom	-	3.00	0.00	Y	Arm 6 Right	50.00
8/1 (Circulatory West)	U	C	2	3	8.0	Geom	-	3.30	0.00	Y	Arm 12 Ahead	60.00
8/2 (Circulatory West)	U	C	2	3	8.0	Geom	-	3.30	0.00	Y	Arm 5 Right	60.00
											Arm 12 Ahead	60.00
8/3 (Circulatory West)	U	C	2	3	8.0	Geom	-	3.30	0.00	Y	Arm 5 Right	60.00
9/1 (A628 Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/2 (A628 Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (M1 South Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/2 (M1 South Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1 (Whinby Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2 (Whinby Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (M1 North Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/2 (M1 North Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: M1 Junction 37

Lane	Custom Occupancy per Flow Group (PCU)			
	2026 Do Minimum AM	2026 Do Minimum PM	2026 With Development AM	2026 With Development PM
1/2 (A628 Lane 2)	5.0	3.0	5.0	3.0

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2026 Do Minimum AM'	07:15	08:15	01:00	
2: '2026 Do Minimum PM'	16:45	17:45	01:00	
3: '2026 With Development AM'	07:15	08:15	01:00	
4: '2026 With Development PM'	16:45	17:45	01:00	

Scenario 1: '2026 Do Minimum AM' (FG1: '2026 Do Minimum AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	592	218	407	1217
	B	508	0	433	1	942
	C	328	648	5	475	1456
	D	361	1	249	0	611
	Tot.	1197	1241	905	883	4226

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2026 Do Minimum AM
Junction: M1 Junction 37	
1/1 (with short)	1217(In) 592(Out)
1/2 (short)	625
2/1	434
2/2	508
3/1 (short)	475
3/2 (with short)	803(In) 328(Out)
3/3	653
4/1	362
4/2	249
5/1	552
5/2	574
5/3	363
6/1	288
6/2	396
6/3	195
7/1	291
7/2	428
7/3	184
8/1	213
8/2	419
8/3	284
9/1	732
9/2	465
10/1	587
10/2	654
11/1	504
11/2	401
12/1	450
12/2	433

Full Input Data And Results

Lane Saturation Flows

Junction: M1 Junction 37								
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 (A628)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A628 Lane 2)	This lane uses a directly entered Saturation Flow						3830	3830
2/1 (M1 South)	3.30	0.00	Y	Arm 8 Ahead	60.00	0.2 %	1875	1875
				Arm 11 Left	40.00	99.8 %		
2/2 (M1 South)	3.00	0.00	Y	Arm 8 Ahead	45.00	100.0 %	1853	1853
3/1 (Whinby Road)	3.00	0.00	Y	Arm 12 Left	15.00	100.0 %	1741	1741
3/2 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	18.00	100.0 %	1768	1768
3/3 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	20.00	100.0 %	1781	1781
4/1 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	0.3 %	1859	1859
				Arm 9 Left	50.00	99.7 %		
4/2 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	100.0 %	1868	1868
5/1 (Circulatory North)	3.30	0.00	Y	Arm 9 Ahead	60.00	100.0 %	1898	1898
5/2 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	50.5 %	1898	1898
				Arm 9 Ahead	60.00	49.5 %		
5/3 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	100.0 %	1898	1898
6/1 (Circulatory South)	3.30	0.00	Y	Arm 11 Ahead	80.00	100.0 %	1909	1909
6/2 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	53.5 %	1898	1898
				Arm 11 Ahead	80.00	46.5 %		
6/3 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	100.0 %	1888	1888
7/1 (Circulatory East)	3.00	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1868	1868
7/2 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	16.4 %	1867	1867
				Arm 10 Ahead	60.00	83.6 %		
7/3 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	100.0 %	1859	1859
8/1 (Circulatory West)	3.30	0.00	Y	Arm 12 Ahead	60.00	100.0 %	1898	1898
8/2 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	53.5 %	1898	1898
				Arm 12 Ahead	60.00	46.5 %		
8/3 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	100.0 %	1898	1898
9/1 (A628 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

9/2 (A628 Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/1 (M1 South Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (M1 South Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (Whinby Road Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (Whinby Road Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (M1 North Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (M1 North Exit Lane 2)	Infinite Saturation Flow	Inf	Inf

Scenario 2: '2026 Do Minimum PM' (FG2: '2026 Do Minimum PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	522	397	287	1206
	B	625	0	666	2	1293
	C	377	466	6	253	1102
	D	489	6	531	0	1026
	Tot.	1491	994	1600	542	4627

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2026 Do Minimum PM
Junction: M1 Junction 37	
1/1 (with short)	1206(In) 522(Out)
1/2 (short)	684
2/1	668
2/2	625
3/1 (short)	253
3/2 (with short)	630(In) 377(Out)
3/3	472
4/1	495
4/2	531
5/1	611
5/2	600
5/3	263
6/1	522
6/2	508
6/3	191
7/1	215
7/2	412
7/3	382
8/1	98
8/2	425
8/3	391
9/1	855
9/2	636
10/1	476
10/2	518
11/1	855
11/2	745
12/1	224
12/2	318

Full Input Data And Results

Lane Saturation Flows

Junction: M1 Junction 37								
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 (A628)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A628 Lane 2)	This lane uses a directly entered Saturation Flow						3830	3830
2/1 (M1 South)	3.30	0.00	Y	Arm 8 Ahead	60.00	0.3 %	1875	1875
				Arm 11 Left	40.00	99.7 %		
2/2 (M1 South)	3.00	0.00	Y	Arm 8 Ahead	45.00	100.0 %	1853	1853
3/1 (Whinby Road)	3.00	0.00	Y	Arm 12 Left	15.00	100.0 %	1741	1741
3/2 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	18.00	100.0 %	1768	1768
3/3 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	20.00	100.0 %	1781	1781
4/1 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	1.2 %	1859	1859
				Arm 9 Left	50.00	98.8 %		
4/2 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	100.0 %	1868	1868
5/1 (Circulatory North)	3.30	0.00	Y	Arm 9 Ahead	60.00	100.0 %	1898	1898
5/2 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	34.8 %	1898	1898
				Arm 9 Ahead	60.00	65.2 %		
5/3 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	100.0 %	1898	1898
6/1 (Circulatory South)	3.30	0.00	Y	Arm 11 Ahead	80.00	100.0 %	1909	1909
6/2 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	18.9 %	1905	1905
				Arm 11 Ahead	80.00	81.1 %		
6/3 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	100.0 %	1888	1888
7/1 (Circulatory East)	3.00	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1868	1868
7/2 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	37.6 %	1865	1865
				Arm 10 Ahead	60.00	62.4 %		
7/3 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	100.0 %	1859	1859
8/1 (Circulatory West)	3.30	0.00	Y	Arm 12 Ahead	60.00	100.0 %	1898	1898
8/2 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	55.1 %	1898	1898
				Arm 12 Ahead	60.00	44.9 %		
8/3 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	100.0 %	1898	1898
9/1 (A628 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

9/2 (A628 Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/1 (M1 South Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (M1 South Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (Whinby Road Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (Whinby Road Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (M1 North Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (M1 North Exit Lane 2)	Infinite Saturation Flow	Inf	Inf

Scenario 3: '2026 With Development AM' (FG3: '2026 With Development AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	570	317	387	1274
	B	507	0	518	1	1026
	C	379	754	5	511	1649
	D	364	1	280	0	645
	Tot.	1250	1325	1120	899	4594

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2026 With Development AM
Junction: M1 Junction 37	
1/1 (with short)	1274(In) 570(Out)
1/2 (short)	704
2/1	519
2/2	507
3/1 (short)	511
3/2 (with short)	890(In) 379(Out)
3/3	759
4/1	365
4/2	280
5/1	578
5/2	612
5/3	455
6/1	325
6/2	493
6/3	171
7/1	305
7/2	460
7/3	275
8/1	217
8/2	370
8/3	308
9/1	760
9/2	490
10/1	590
10/2	735
11/1	584
11/2	536
12/1	472
12/2	427

Full Input Data And Results

Lane Saturation Flows

Junction: M1 Junction 37								
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 (A628)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A628 Lane 2)	This lane uses a directly entered Saturation Flow						3830	3830
2/1 (M1 South)	3.30	0.00	Y	Arm 8 Ahead	60.00	0.2 %	1875	1875
				Arm 11 Left	40.00	99.8 %		
2/2 (M1 South)	3.00	0.00	Y	Arm 8 Ahead	45.00	100.0 %	1853	1853
3/1 (Whinby Road)	3.00	0.00	Y	Arm 12 Left	15.00	100.0 %	1741	1741
3/2 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	18.00	100.0 %	1768	1768
3/3 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	20.00	100.0 %	1781	1781
4/1 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	0.3 %	1859	1859
				Arm 9 Left	50.00	99.7 %		
4/2 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	100.0 %	1868	1868
5/1 (Circulatory North)	3.30	0.00	Y	Arm 9 Ahead	60.00	100.0 %	1898	1898
5/2 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	49.7 %	1898	1898
				Arm 9 Ahead	60.00	50.3 %		
5/3 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	100.0 %	1898	1898
6/1 (Circulatory South)	3.30	0.00	Y	Arm 11 Ahead	80.00	100.0 %	1909	1909
6/2 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	43.8 %	1900	1900
				Arm 11 Ahead	80.00	56.2 %		
6/3 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	100.0 %	1888	1888
7/1 (Circulatory East)	3.00	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1868	1868
7/2 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	2.2 %	1868	1868
				Arm 10 Ahead	60.00	97.8 %		
7/3 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	100.0 %	1859	1859
8/1 (Circulatory West)	3.30	0.00	Y	Arm 12 Ahead	60.00	100.0 %	1898	1898
8/2 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	53.8 %	1898	1898
				Arm 12 Ahead	60.00	46.2 %		
8/3 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	100.0 %	1898	1898
9/1 (A628 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

9/2 (A628 Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/1 (M1 South Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (M1 South Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (Whinby Road Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (Whinby Road Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (M1 North Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (M1 North Exit Lane 2)	Infinite Saturation Flow	Inf	Inf

Scenario 4: '2026 With Development PM' (FG4: '2026 With Development PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	440	457	360	1257
	B	548	0	850	2	1400
	C	431	582	6	233	1252
	D	490	6	579	0	1075
	Tot.	1469	1028	1892	595	4984

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2026 With Development PM
Junction: M1 Junction 37	
1/1 (with short)	1257(In) 440(Out)
1/2 (short)	817
2/1	850
2/2	550
3/1 (short)	233
3/2 (with short)	664(In) 431(Out)
3/3	588
4/1	496
4/2	579
5/1	601
5/2	515
5/3	451
6/1	565
6/2	550
6/3	287
7/1	143
7/2	616
7/3	414
8/1	73
8/2	459
8/3	378
9/1	846
9/2	623
10/1	363
10/2	665
11/1	990
11/2	902
12/1	189
12/2	406

Full Input Data And Results

Lane Saturation Flows

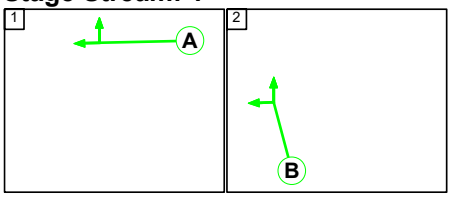
Junction: M1 Junction 37								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A628)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A628 Lane 2)	This lane uses a directly entered Saturation Flow						3830	3830
2/1 (M1 South)	3.30	0.00	Y	Arm 8 Ahead	60.00	0.0 %	1875	1875
				Arm 11 Left	40.00	100.0 %		
2/2 (M1 South)	3.00	0.00	Y	Arm 8 Ahead	45.00	100.0 %	1853	1853
3/1 (Whinby Road)	3.00	0.00	Y	Arm 12 Left	15.00	100.0 %	1741	1741
3/2 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	18.00	100.0 %	1768	1768
3/3 (Whinby Road)	3.00	0.00	Y	Arm 5 Ahead	20.00	100.0 %	1781	1781
4/1 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	1.2 %	1859	1859
				Arm 9 Left	50.00	98.8 %		
4/2 (M1 North)	3.00	0.00	Y	Arm 7 Ahead	60.00	100.0 %	1868	1868
5/1 (Circulatory North)	3.30	0.00	Y	Arm 9 Ahead	60.00	100.0 %	1898	1898
5/2 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	26.6 %	1898	1898
				Arm 9 Ahead	60.00	73.4 %		
5/3 (Circulatory North)	3.30	0.00	Y	Arm 7 Right	60.00	100.0 %	1898	1898
6/1 (Circulatory South)	3.30	0.00	Y	Arm 11 Ahead	80.00	100.0 %	1909	1909
6/2 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	13.3 %	1906	1906
				Arm 11 Ahead	80.00	86.7 %		
6/3 (Circulatory South)	3.30	0.00	Y	Arm 8 Right	50.00	100.0 %	1888	1888
7/1 (Circulatory East)	3.00	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1868	1868
7/2 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	27.8 %	1866	1866
				Arm 10 Ahead	60.00	72.2 %		
7/3 (Circulatory East)	3.00	0.00	Y	Arm 6 Right	50.00	100.0 %	1859	1859
8/1 (Circulatory West)	3.30	0.00	Y	Arm 12 Ahead	60.00	100.0 %	1898	1898
8/2 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	37.0 %	1898	1898
				Arm 12 Ahead	60.00	63.0 %		
8/3 (Circulatory West)	3.30	0.00	Y	Arm 5 Right	60.00	100.0 %	1898	1898
9/1 (A628 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

9/2 (A628 Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/1 (M1 South Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (M1 South Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (Whinby Road Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (Whinby Road Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (M1 North Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (M1 North Exit Lane 2)	Infinite Saturation Flow	Inf	Inf

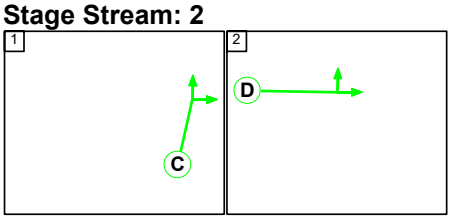
Scenario 1: '2026 Do Minimum AM' (FG1: '2026 Do Minimum AM', Plan 1: 'Network Control Plan 1')
C1 - Northbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

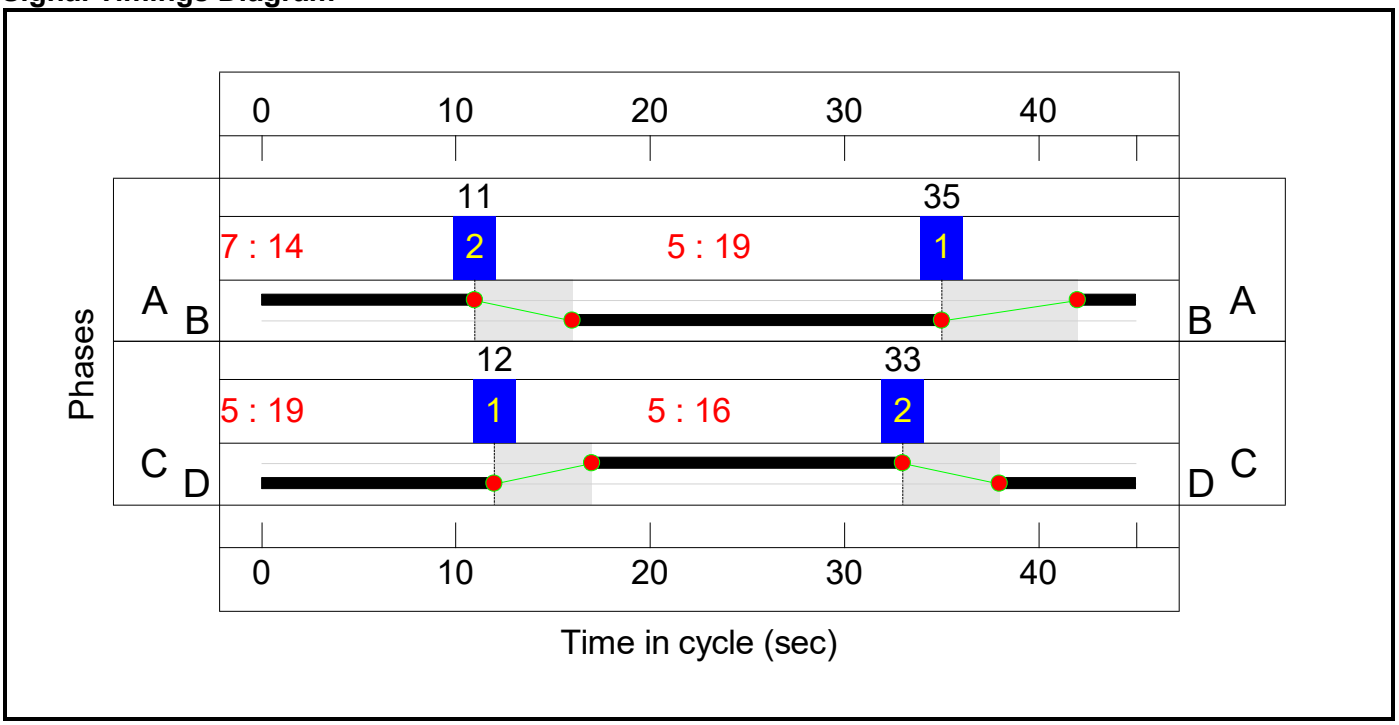
Stage	1	2
Duration	14	19
Change Point	35	11

Stage Stream: 2

Stage	1	2
Duration	16	19
Change Point	12	33

Full Input Data And Results

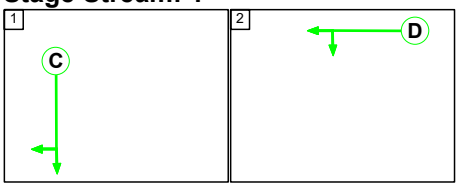
Signal Timings Diagram



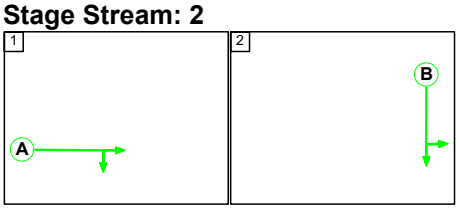
C2 - Southbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

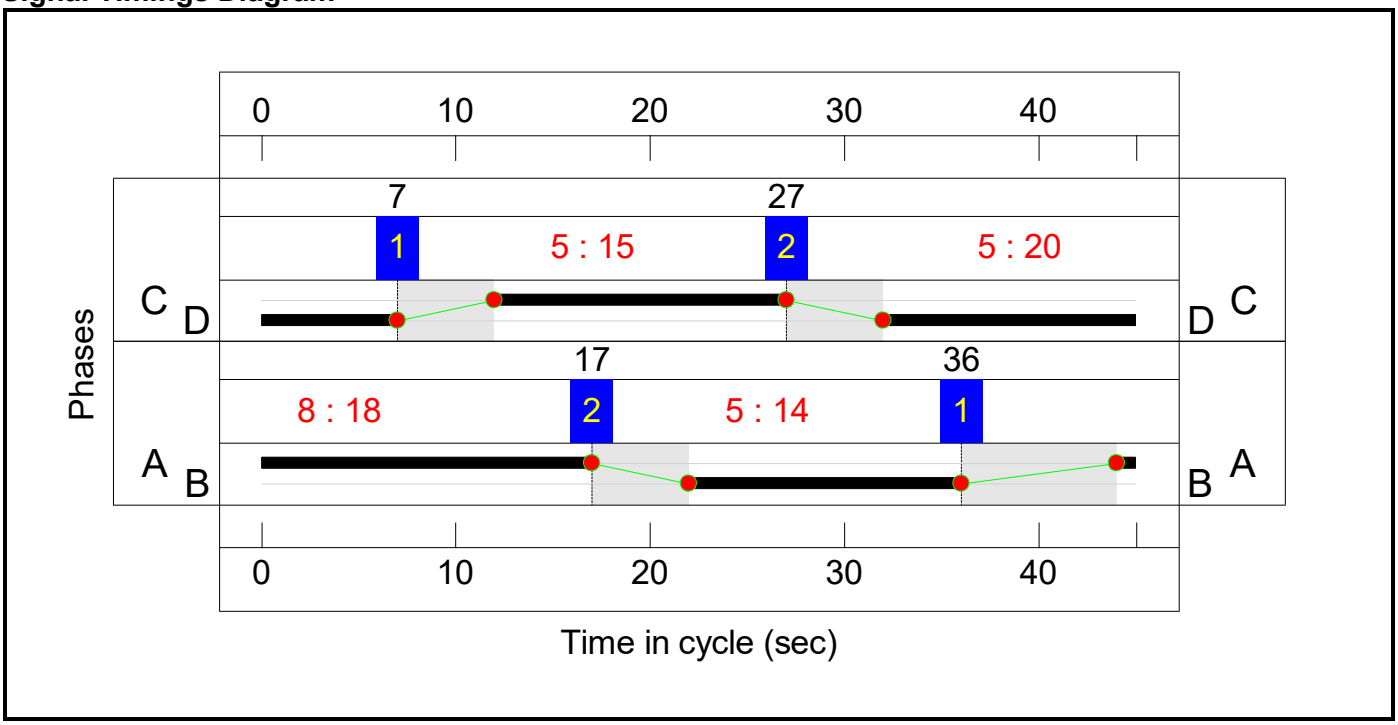
Stage	1	2
Duration	15	20
Change Point	7	27

Stage Stream: 2

Stage	1	2
Duration	18	14
Change Point	36	17

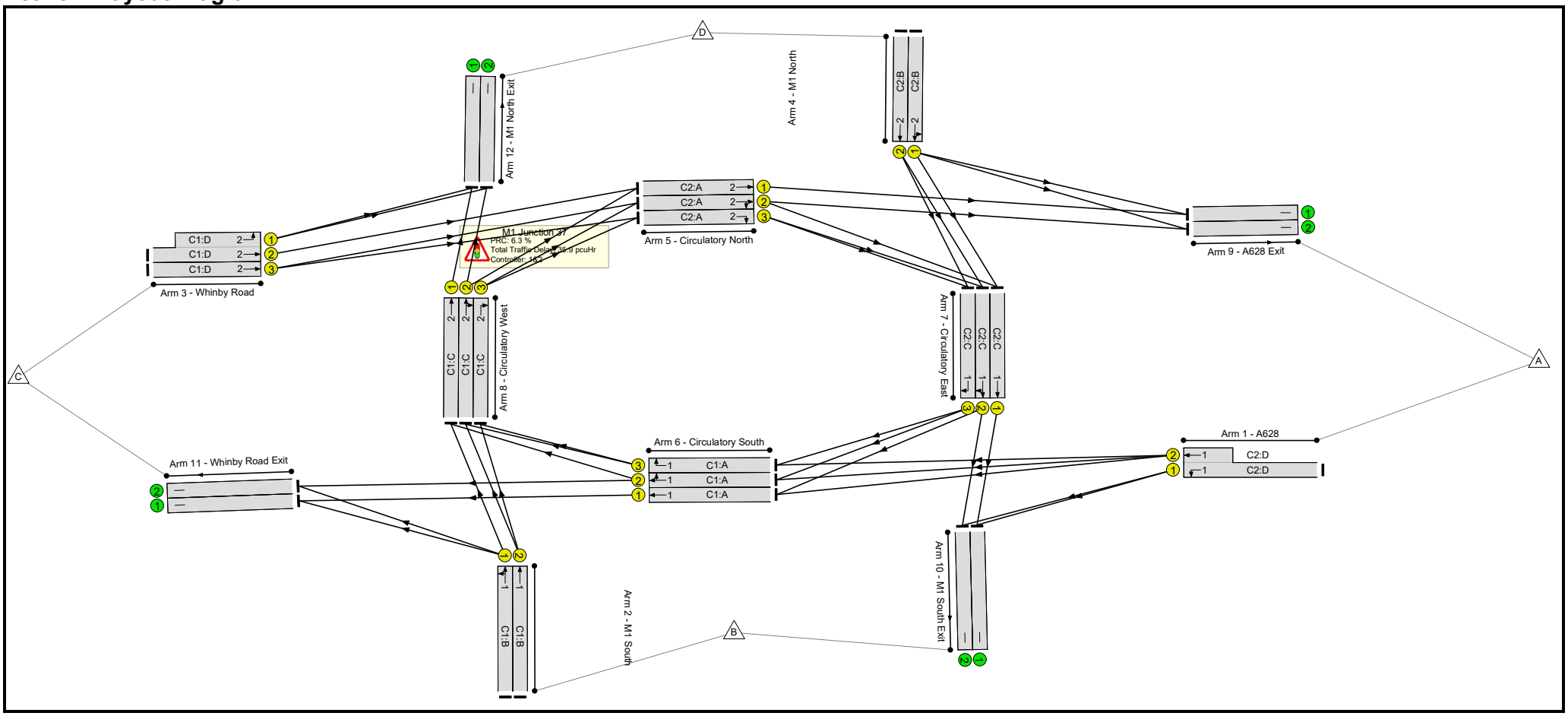
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.7%**
M1 Junction 37	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.7%**
1/1+1/2	A628 Ahead Left	U	2:1	N/A	C2:D		1	20	-	1217	1846:3830	699+738	84.7 : 84.7%
2/1	M1 South Ahead Left	U	1:1	N/A	C1:B		1	19	-	434	1875	833	52.1%
2/2	M1 South Ahead	U	1:1	N/A	C1:B		1	19	-	508	1853	824	61.7%
3/2+3/1	Whinby Road Ahead Left	U	1:2	N/A	C1:D		1	19	-	803	1768:1741	519+752	63.2 : 63.2%
3/3	Whinby Road Ahead	U	1:2	N/A	C1:D		1	19	-	653	1781	792	82.5%
4/1	M1 North Ahead Left	U	2:2	N/A	C2:B		1	14	-	362	1859	620	58.4%
4/2	M1 North Ahead	U	2:2	N/A	C2:B		1	14	-	249	1868	623	40.0%
5/1	Circulatory North Ahead	U	2:2	N/A	C2:A		1	18	-	552	1898	801	68.9%
5/2	Circulatory North Right Ahead	U	2:2	N/A	C2:A		1	18	-	574	1898	801	71.6%
5/3	Circulatory North Right	U	2:2	N/A	C2:A		1	18	-	363	1898	801	45.3%
6/1	Circulatory South Ahead	U	1:1	N/A	C1:A		1	14	-	288	1909	636	45.3%
6/2	Circulatory South Right Ahead	U	1:1	N/A	C1:A		1	14	-	396	1898	633	62.6%
6/3	Circulatory South Right	U	1:1	N/A	C1:A		1	14	-	195	1888	629	31.0%
7/1	Circulatory East Ahead	U	2:1	N/A	C2:C		1	15	-	291	1868	664	43.8%

Full Input Data And Results

7/2	Circulatory East Right Ahead	U	2:1	N/A	C2:C		1	15	-	428	1867	664	64.5%
7/3	Circulatory East Right	U	2:1	N/A	C2:C		1	15	-	184	1859	661	27.8%
8/1	Circulatory West Ahead	U	1:2	N/A	C1:C		1	16	-	213	1898	717	29.7%
8/2	Circulatory West Right Ahead	U	1:2	N/A	C1:C		1	16	-	419	1898	717	58.4%
8/3	Circulatory West Right	U	1:2	N/A	C1:C		1	16	-	284	1898	717	39.6%
9/1	A628 Exit	U	N/A	N/A	-		-	-	-	732	Inf	Inf	0.0%
9/2	A628 Exit	U	N/A	N/A	-		-	-	-	465	Inf	Inf	0.0%
10/1	M1 South Exit	U	N/A	N/A	-		-	-	-	587	Inf	Inf	0.0%
10/2	M1 South Exit	U	N/A	N/A	-		-	-	-	654	Inf	Inf	0.0%
11/1	Whinby Road Exit	U	N/A	N/A	-		-	-	-	504	Inf	Inf	0.0%
11/2	Whinby Road Exit	U	N/A	N/A	-		-	-	-	401	Inf	Inf	0.0%
12/1	M1 North Exit	U	N/A	N/A	-		-	-	-	450	Inf	Inf	0.0%
12/2	M1 North Exit	U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**20.7**	**15.2**	**0.0**	**35.9**	**-**	**-**	**-**	**-**
M1 Junction 37	**-**	**-**	**0**	**0**	**0**	**20.7**	**15.2**	**0.0**	**35.9**	**-**	**-**	**-**	**-**
1/1+1/2	1217	1217	-	-	-	2.9	2.7	-	5.6	16.6	7.4	2.7	10.1
2/1	434	434	-	-	-	1.1	0.5	-	1.6	13.5	3.9	0.5	4.4
2/2	508	508	-	-	-	1.4	0.8	-	2.2	15.3	4.8	0.8	5.6
3/2+3/1	803	803	-	-	-	2.0	0.9	-	2.9	13.0	4.5	0.9	5.3
3/3	653	653	-	-	-	2.0	2.3	-	4.3	23.5	7.1	2.3	9.4
4/1	362	362	-	-	-	1.2	0.7	-	1.9	19.4	3.7	0.7	4.4
4/2	249	249	-	-	-	0.8	0.3	-	1.1	16.4	2.4	0.3	2.7
5/1	552	552	-	-	-	0.9	1.1	-	2.0	13.1	3.5	1.1	4.6
5/2	574	574	-	-	-	1.3	1.2	-	2.6	16.1	5.0	1.2	6.2
5/3	363	363	-	-	-	0.7	0.4	-	1.1	10.7	1.2	0.4	1.7
6/1	288	288	-	-	-	0.7	0.4	-	1.1	13.7	1.5	0.4	2.0
6/2	396	396	-	-	-	1.2	0.8	-	2.0	18.4	3.3	0.8	4.1
6/3	195	195	-	-	-	0.3	0.2	-	0.6	10.3	0.6	0.2	0.8
7/1	291	291	-	-	-	0.1	0.4	-	0.5	6.5	1.0	0.4	1.4
7/2	428	428	-	-	-	0.7	0.9	-	1.6	13.5	3.7	0.9	4.6
7/3	184	184	-	-	-	1.3	0.2	-	1.5	28.8	2.3	0.2	2.5
8/1	213	213	-	-	-	0.6	0.2	-	0.9	14.5	2.7	0.2	2.9
8/2	419	419	-	-	-	1.0	0.7	-	1.7	14.4	3.1	0.7	3.8
8/3	284	284	-	-	-	0.4	0.3	-	0.7	9.4	0.8	0.3	1.1
9/1	732	732	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	465	465	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	587	587	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	654	654	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	504	504	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

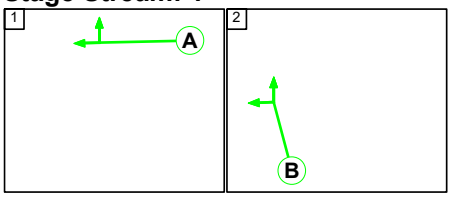
11/2	401	401	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	450	450	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	433	433	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 - Northbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	43.8	Total Delay for Signalled Lanes (pcuHr):	7.46	Cycle Time (s):	45
C1 - Northbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	9.1	Total Delay for Signalled Lanes (pcuHr):	10.45	Cycle Time (s):	45
C2 - Southbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	6.3	Total Delay for Signalled Lanes (pcuHr):	9.23	Cycle Time (s):	45
C2 - Southbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	25.7	Total Delay for Signalled Lanes (pcuHr):	8.73	Cycle Time (s):	45
	PRC Over All Lanes (%):	6.3	Total Delay Over All Lanes(pcuHr):	35.86		

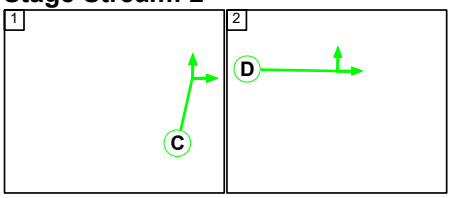
Full Input Data And Results
Scenario 2: '2026 Do Minimum PM' (FG2: '2026 Do Minimum PM', Plan 1: 'Network Control Plan 1')
C1 - Northbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

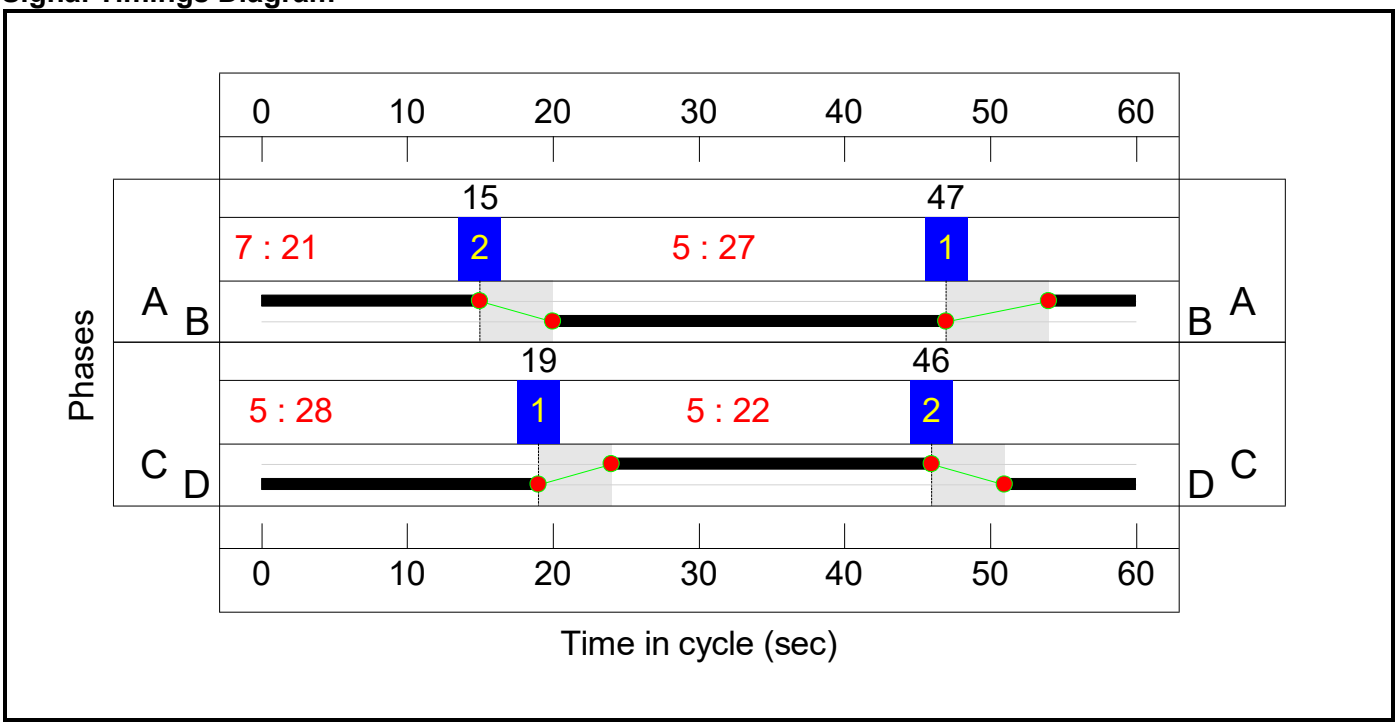
Stage Stream: 1

Stage	1	2
Duration	21	27
Change Point	47	15

Stage Stream: 2

Stage	1	2
Duration	22	28
Change Point	19	46

Signal Timings Diagram

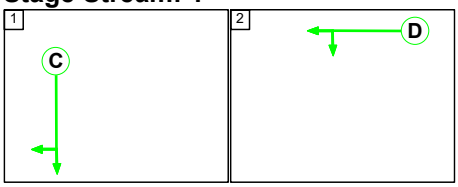


Full Input Data And Results

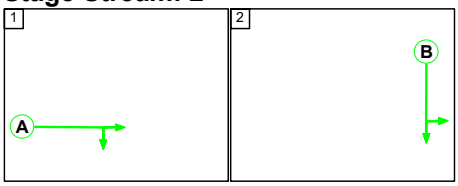
C2 - Southbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

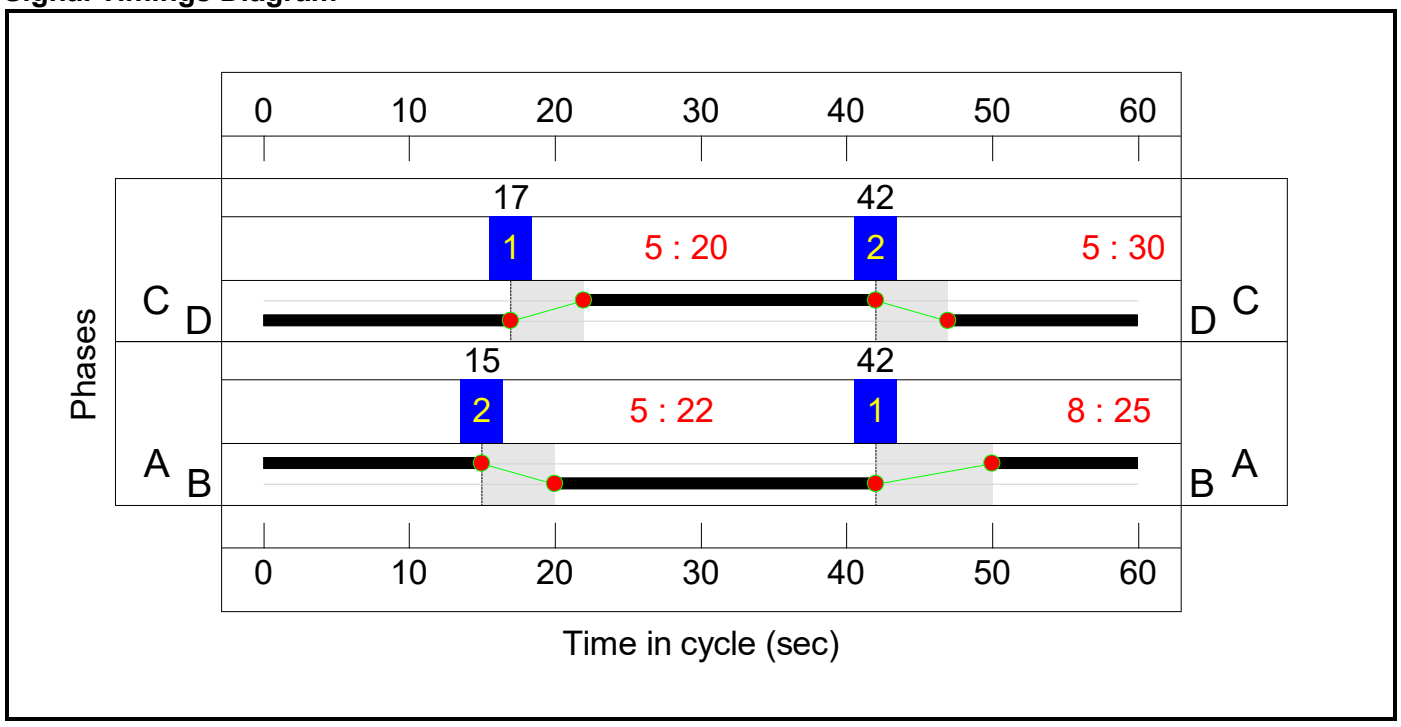
Stage Stream: 1

Stage	1	2
Duration	20	30
Change Point	17	42

Stage Stream: 2

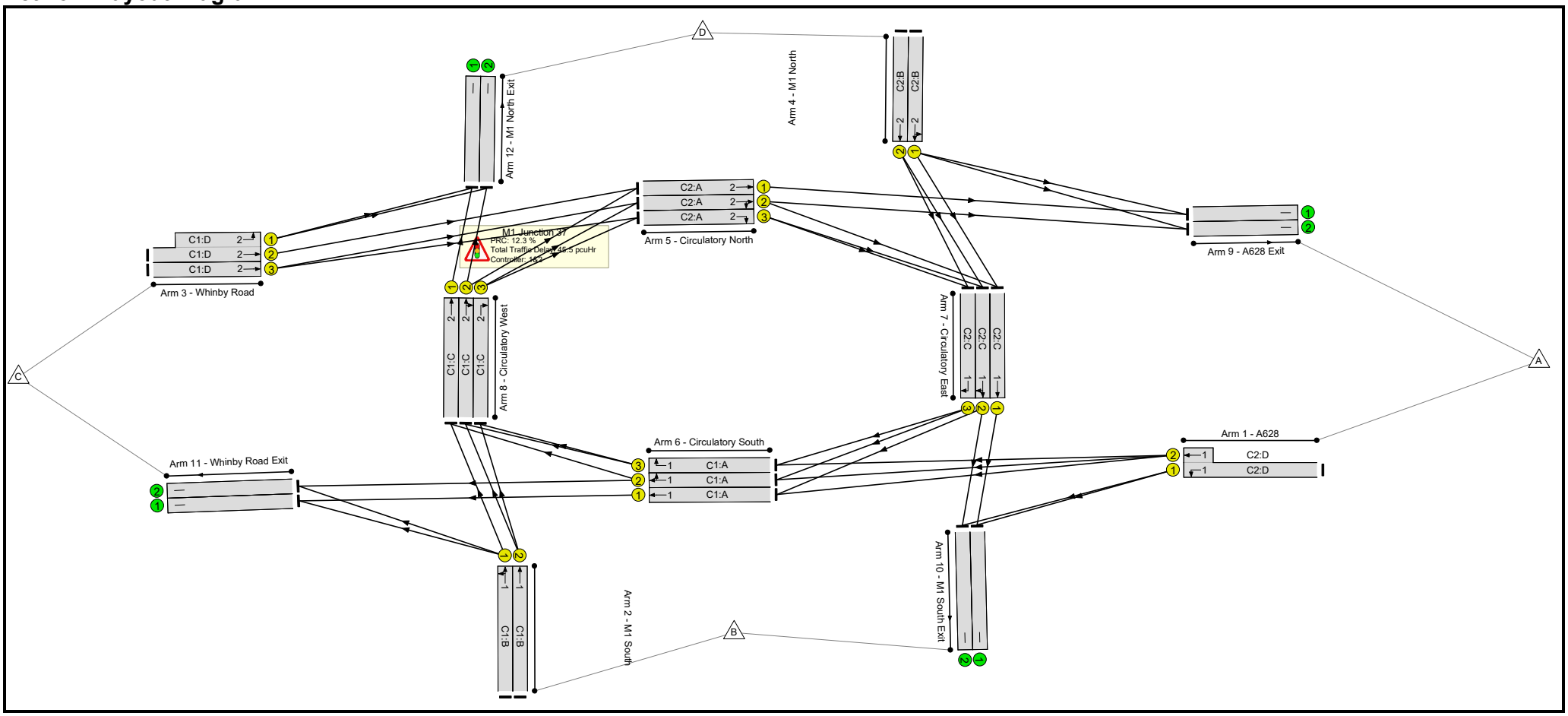
Stage	1	2
Duration	25	22
Change Point	42	15

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.1%**
M1 Junction 37	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.1%**
1/1+1/2	A628 Ahead Left	U	2:1	N/A	C2:D		1	30	-	1206	1846:3830	651+854	80.1 : 80.1%
2/1	M1 South Ahead Left	U	1:1	N/A	C1:B		1	27	-	668	1875	875	76.3%
2/2	M1 South Ahead	U	1:1	N/A	C1:B		1	27	-	625	1853	865	72.3%
3/2+3/1	Whinby Road Ahead Left	U	1:2	N/A	C1:D		1	28	-	630	1768:1741	740+496	51.0 : 51.0%
3/3	Whinby Road Ahead	U	1:2	N/A	C1:D		1	28	-	472	1781	861	54.8%
4/1	M1 North Ahead Left	U	2:2	N/A	C2:B		1	22	-	495	1859	713	69.5%
4/2	M1 North Ahead	U	2:2	N/A	C2:B		1	22	-	531	1868	716	74.2%
5/1	Circulatory North Ahead	U	2:2	N/A	C2:A		1	25	-	611	1898	822	74.3%
5/2	Circulatory North Right Ahead	U	2:2	N/A	C2:A		1	25	-	600	1898	822	73.0%
5/3	Circulatory North Right	U	2:2	N/A	C2:A		1	25	-	263	1898	822	32.0%
6/1	Circulatory South Ahead	U	1:1	N/A	C1:A		1	21	-	522	1909	700	74.6%
6/2	Circulatory South Right Ahead	U	1:1	N/A	C1:A		1	21	-	508	1905	699	72.7%
6/3	Circulatory South Right	U	1:1	N/A	C1:A		1	21	-	191	1888	692	27.6%
7/1	Circulatory East Ahead	U	2:1	N/A	C2:C		1	20	-	215	1868	654	32.9%

Full Input Data And Results

7/2	Circulatory East Right Ahead	U	2:1	N/A	C2:C		1	20	-	412	1865	653	63.1%
7/3	Circulatory East Right	U	2:1	N/A	C2:C		1	20	-	382	1859	651	58.7%
8/1	Circulatory West Ahead	U	1:2	N/A	C1:C		1	22	-	98	1898	728	13.5%
8/2	Circulatory West Right Ahead	U	1:2	N/A	C1:C		1	22	-	425	1898	728	58.4%
8/3	Circulatory West Right	U	1:2	N/A	C1:C		1	22	-	391	1898	728	53.7%
9/1	A628 Exit	U	N/A	N/A	-		-	-	-	855	Inf	Inf	0.0%
9/2	A628 Exit	U	N/A	N/A	-		-	-	-	636	Inf	Inf	0.0%
10/1	M1 South Exit	U	N/A	N/A	-		-	-	-	476	Inf	Inf	0.0%
10/2	M1 South Exit	U	N/A	N/A	-		-	-	-	518	Inf	Inf	0.0%
11/1	Whinby Road Exit	U	N/A	N/A	-		-	-	-	855	Inf	Inf	0.0%
11/2	Whinby Road Exit	U	N/A	N/A	-		-	-	-	745	Inf	Inf	0.0%
12/1	M1 North Exit	U	N/A	N/A	-		-	-	-	224	Inf	Inf	0.0%
12/2	M1 North Exit	U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**27.9**	**17.6**	**0.0**	**45.5**	**-**	**-**	**-**	**-**
M1 Junction 37	**-**	**-**	**0**	**0**	**0**	**27.9**	**17.6**	**0.0**	**45.5**	**-**	**-**	**-**	**-**
1/1+1/2	1206	1206	-	-	-	3.3	2.0	-	5.3	15.9	12.5	2.0	14.4
2/1	668	668	-	-	-	2.5	1.6	-	4.0	21.8	9.1	1.6	10.7
2/2	625	625	-	-	-	2.2	1.3	-	3.5	20.3	8.3	1.3	9.6
3/2+3/1	630	630	-	-	-	1.7	0.5	-	2.2	12.8	4.1	0.5	4.6
3/3	472	472	-	-	-	1.4	0.6	-	2.0	15.5	5.5	0.6	6.1
4/1	495	495	-	-	-	2.1	1.1	-	3.3	23.7	6.9	1.1	8.0
4/2	531	531	-	-	-	2.4	1.4	-	3.8	25.5	7.5	1.4	8.9
5/1	611	611	-	-	-	1.4	1.4	-	2.8	16.5	5.7	1.4	7.1
5/2	600	600	-	-	-	1.5	1.3	-	2.9	17.2	7.5	1.3	8.8
5/3	263	263	-	-	-	0.6	0.2	-	0.8	10.8	1.2	0.2	1.5
6/1	522	522	-	-	-	1.5	1.4	-	2.9	20.1	6.5	1.4	7.9
6/2	508	508	-	-	-	1.7	1.3	-	3.0	21.5	7.9	1.3	9.2
6/3	191	191	-	-	-	0.5	0.2	-	0.7	13.1	1.0	0.2	1.2
7/1	215	215	-	-	-	0.8	0.2	-	1.1	17.8	3.5	0.2	3.7
7/2	412	412	-	-	-	1.3	0.8	-	2.2	18.9	5.2	0.8	6.1
7/3	382	382	-	-	-	0.5	0.7	-	1.2	11.6	0.9	0.7	1.6
8/1	98	98	-	-	-	0.4	0.1	-	0.5	18.1	1.6	0.1	1.7
8/2	425	425	-	-	-	1.4	0.7	-	2.1	17.6	4.5	0.7	5.2
8/3	391	391	-	-	-	0.5	0.6	-	1.1	10.3	1.0	0.6	1.6
9/1	855	855	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	636	636	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	476	476	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	518	518	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	855	855	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

11/2	745	745	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	224	224	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	318	318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 - Northbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	17.9	Total Delay for Signalled Lanes (pcuHr):	14.23	Cycle Time (s):	60
C1 - Northbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	54.1	Total Delay for Signalled Lanes (pcuHr):	7.97	Cycle Time (s):	60
C2 - Southbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	12.3	Total Delay for Signalled Lanes (pcuHr):	9.79	Cycle Time (s):	60
C2 - Southbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	21.1	Total Delay for Signalled Lanes (pcuHr):	13.50	Cycle Time (s):	60
	PRC Over All Lanes (%):	12.3	Total Delay Over All Lanes(pcuHr):	45.49		

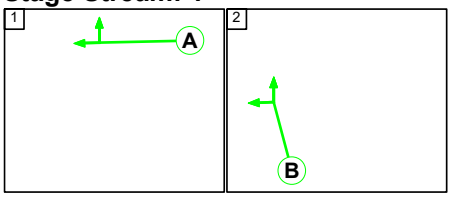
Full Input Data And Results

Scenario 3: '2026 With Development AM' (FG3: '2026 With Development AM', Plan 1: 'Network Control Plan 1')

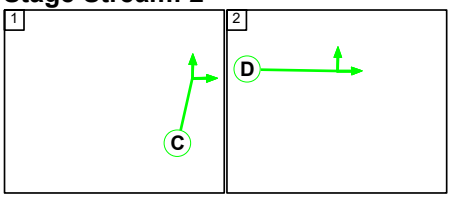
C1 - Northbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

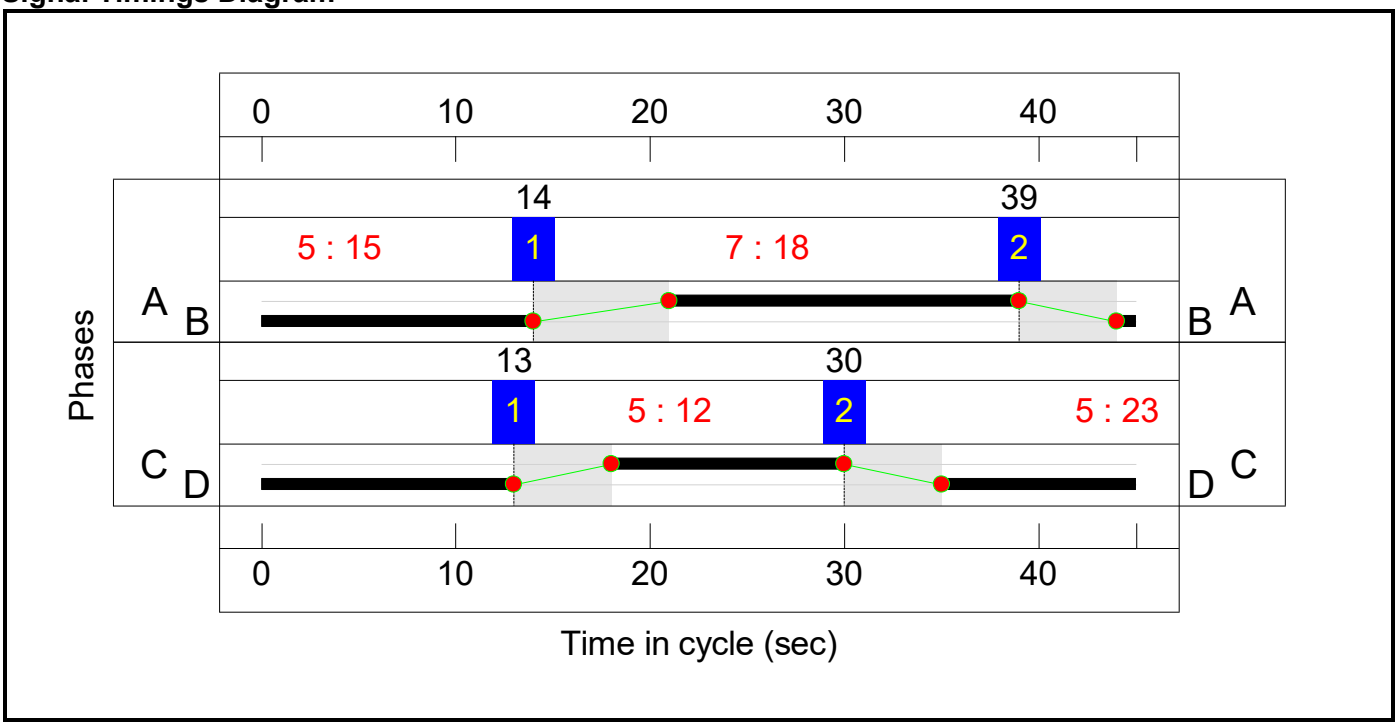
Stage Stream: 1

Stage	1	2
Duration	18	15
Change Point	14	39

Stage Stream: 2

Stage	1	2
Duration	12	23
Change Point	13	30

Signal Timings Diagram

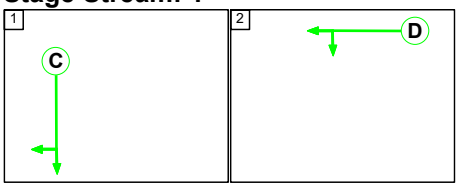


Full Input Data And Results

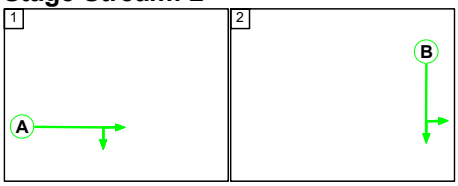
C2 - Southbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

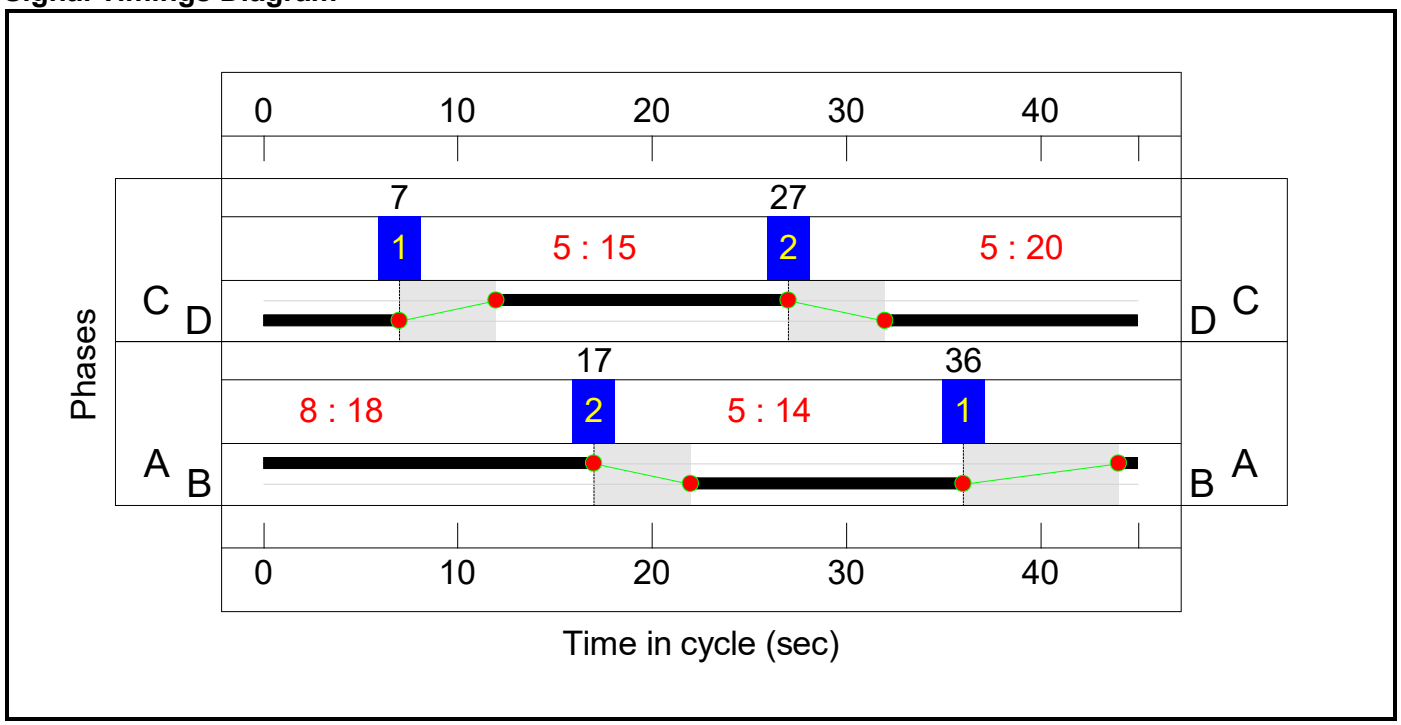
Stage Stream: 1

Stage	1	2
Duration	15	20
Change Point	7	27

Stage Stream: 2

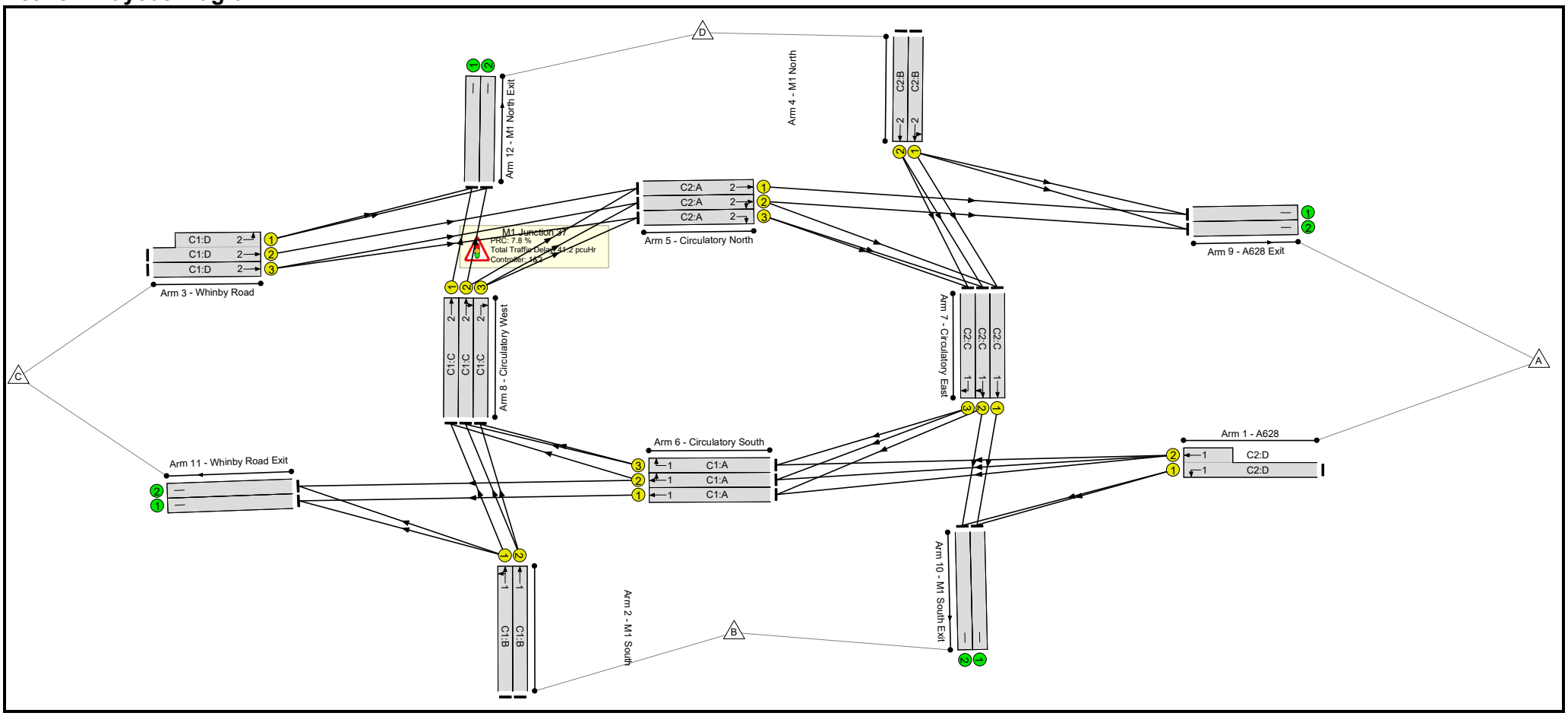
Stage	1	2
Duration	18	14
Change Point	36	17

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.5%**
M1 Junction 37	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.5%**
1/1+1/2	A628 Ahead Left	U	2:1	N/A	C2:D		1	20	-	1274	1846:3830	683+843	83.5 : 83.5%
2/1	M1 South Ahead Left	U	1:1	N/A	C1:B		1	15	-	519	1875	667	77.9%
2/2	M1 South Ahead	U	1:1	N/A	C1:B		1	15	-	507	1853	659	77.0%
3/2+3/1	Whinby Road Ahead Left	U	1:2	N/A	C1:D		1	23	-	890	1768:1741	623+840	60.9 : 60.9%
3/3	Whinby Road Ahead	U	1:2	N/A	C1:D		1	23	-	759	1781	950	79.9%
4/1	M1 North Ahead Left	U	2:2	N/A	C2:B		1	14	-	365	1859	620	58.9%
4/2	M1 North Ahead	U	2:2	N/A	C2:B		1	14	-	280	1868	623	45.0%
5/1	Circulatory North Ahead	U	2:2	N/A	C2:A		1	18	-	578	1898	801	72.1%
5/2	Circulatory North Right Ahead	U	2:2	N/A	C2:A		1	18	-	612	1898	801	76.4%
5/3	Circulatory North Right	U	2:2	N/A	C2:A		1	18	-	455	1898	801	56.8%
6/1	Circulatory South Ahead	U	1:1	N/A	C1:A		1	18	-	325	1909	806	40.3%
6/2	Circulatory South Right Ahead	U	1:1	N/A	C1:A		1	18	-	493	1900	802	61.5%
6/3	Circulatory South Right	U	1:1	N/A	C1:A		1	18	-	171	1888	797	21.5%
7/1	Circulatory East Ahead	U	2:1	N/A	C2:C		1	15	-	305	1868	664	45.9%

Full Input Data And Results

7/2	Circulatory East Right Ahead	U	2:1	N/A	C2:C		1	15	-	460	1868	664	69.3%
7/3	Circulatory East Right	U	2:1	N/A	C2:C		1	15	-	275	1859	661	41.6%
8/1	Circulatory West Ahead	U	1:2	N/A	C1:C		1	12	-	217	1898	548	39.6%
8/2	Circulatory West Right Ahead	U	1:2	N/A	C1:C		1	12	-	370	1898	548	67.5%
8/3	Circulatory West Right	U	1:2	N/A	C1:C		1	12	-	308	1898	548	56.2%
9/1	A628 Exit	U	N/A	N/A	-		-	-	-	760	Inf	Inf	0.0%
9/2	A628 Exit	U	N/A	N/A	-		-	-	-	490	Inf	Inf	0.0%
10/1	M1 South Exit	U	N/A	N/A	-		-	-	-	590	Inf	Inf	0.0%
10/2	M1 South Exit	U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
11/1	Whinby Road Exit	U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%
11/2	Whinby Road Exit	U	N/A	N/A	-		-	-	-	536	Inf	Inf	0.0%
12/1	M1 North Exit	U	N/A	N/A	-		-	-	-	472	Inf	Inf	0.0%
12/2	M1 North Exit	U	N/A	N/A	-		-	-	-	427	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**22.8**	**18.3**	**0.0**	**41.2**	**-**	**-**	**-**	**-**
M1 Junction 37	**-**	**-**	**0**	**0**	**0**	**22.8**	**18.3**	**0.0**	**41.2**	**-**	**-**	**-**	**-**
1/1+1/2	1274	1274	-	-	-	3.0	2.5	-	5.5	15.5	7.1	2.5	9.6
2/1	519	519	-	-	-	1.9	1.7	-	3.6	24.8	5.8	1.7	7.5
2/2	507	507	-	-	-	1.8	1.6	-	3.4	24.5	5.5	1.6	7.1
3/2+3/1	890	890	-	-	-	1.6	0.8	-	2.4	9.8	4.1	0.8	4.9
3/3	759	759	-	-	-	1.8	1.9	-	3.7	17.8	7.6	1.9	9.5
4/1	365	365	-	-	-	1.3	0.7	-	2.0	19.5	3.8	0.7	4.5
4/2	280	280	-	-	-	0.9	0.4	-	1.3	17.0	2.7	0.4	3.1
5/1	578	578	-	-	-	1.4	1.3	-	2.7	16.9	6.5	1.3	7.8
5/2	612	612	-	-	-	1.7	1.6	-	3.3	19.6	6.1	1.6	7.7
5/3	455	455	-	-	-	0.6	0.7	-	1.3	10.2	1.2	0.7	1.9
6/1	325	325	-	-	-	1.4	0.3	-	1.8	19.6	4.1	0.3	4.4
6/2	493	493	-	-	-	0.9	0.8	-	1.7	12.5	2.7	0.8	3.5
6/3	171	171	-	-	-	0.7	0.1	-	0.8	17.5	2.1	0.1	2.3
7/1	305	305	-	-	-	0.1	0.4	-	0.5	6.4	1.1	0.4	1.5
7/2	460	460	-	-	-	0.4	1.1	-	1.5	11.8	4.3	1.1	5.4
7/3	275	275	-	-	-	2.0	0.4	-	2.3	30.3	3.4	0.4	3.8
8/1	217	217	-	-	-	0.1	0.3	-	0.4	6.5	0.1	0.3	0.4
8/2	370	370	-	-	-	0.4	1.0	-	1.4	13.8	2.4	1.0	3.5
8/3	308	308	-	-	-	0.7	0.6	-	1.3	15.8	3.8	0.6	4.5
9/1	760	760	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	490	490	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	590	590	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	584	584	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

11/2	536	536	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	472	472	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	427	427	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 - Northbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	15.6	Total Delay for Signalled Lanes (pcuHr):	11.34	Cycle Time (s):	45
C1 - Northbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	12.6	Total Delay for Signalled Lanes (pcuHr):	9.32	Cycle Time (s):	45
C2 - Southbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	7.8	Total Delay for Signalled Lanes (pcuHr):	9.85	Cycle Time (s):	45
C2 - Southbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	17.8	Total Delay for Signalled Lanes (pcuHr):	10.64	Cycle Time (s):	45
	PRC Over All Lanes (%):	7.8	Total Delay Over All Lanes(pcuHr):	41.15		

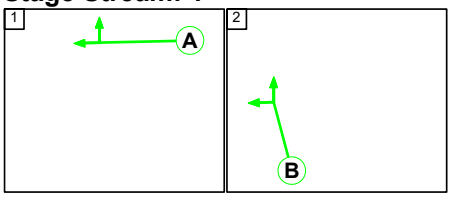
Full Input Data And Results

Scenario 4: '2026 With Development PM' (FG4: '2026 With Development PM', Plan 1: 'Network Control Plan 1')

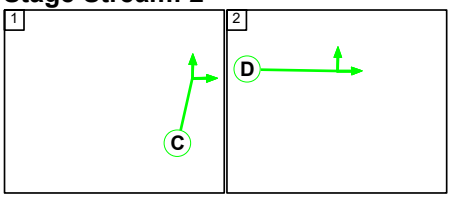
C1 - Northbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

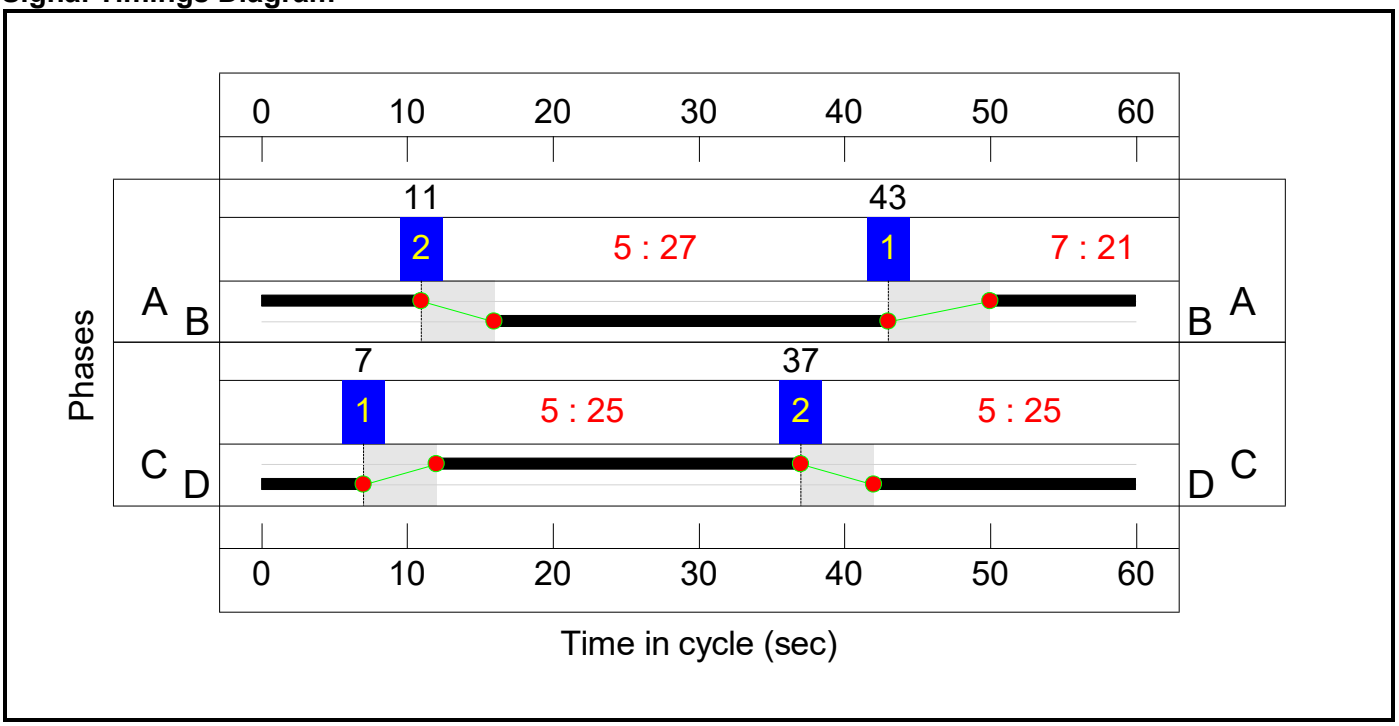
Stage Stream: 1

Stage	1	2
Duration	21	27
Change Point	43	11

Stage Stream: 2

Stage	1	2
Duration	25	25
Change Point	7	37

Signal Timings Diagram

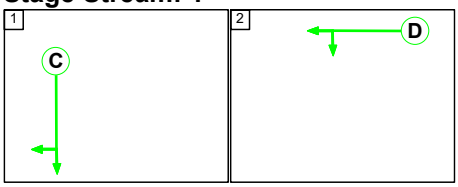


Full Input Data And Results

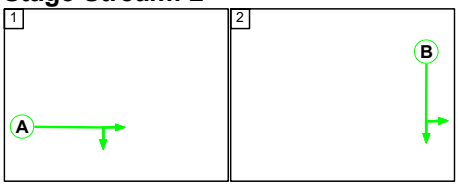
C2 - Southbound Gyratory

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

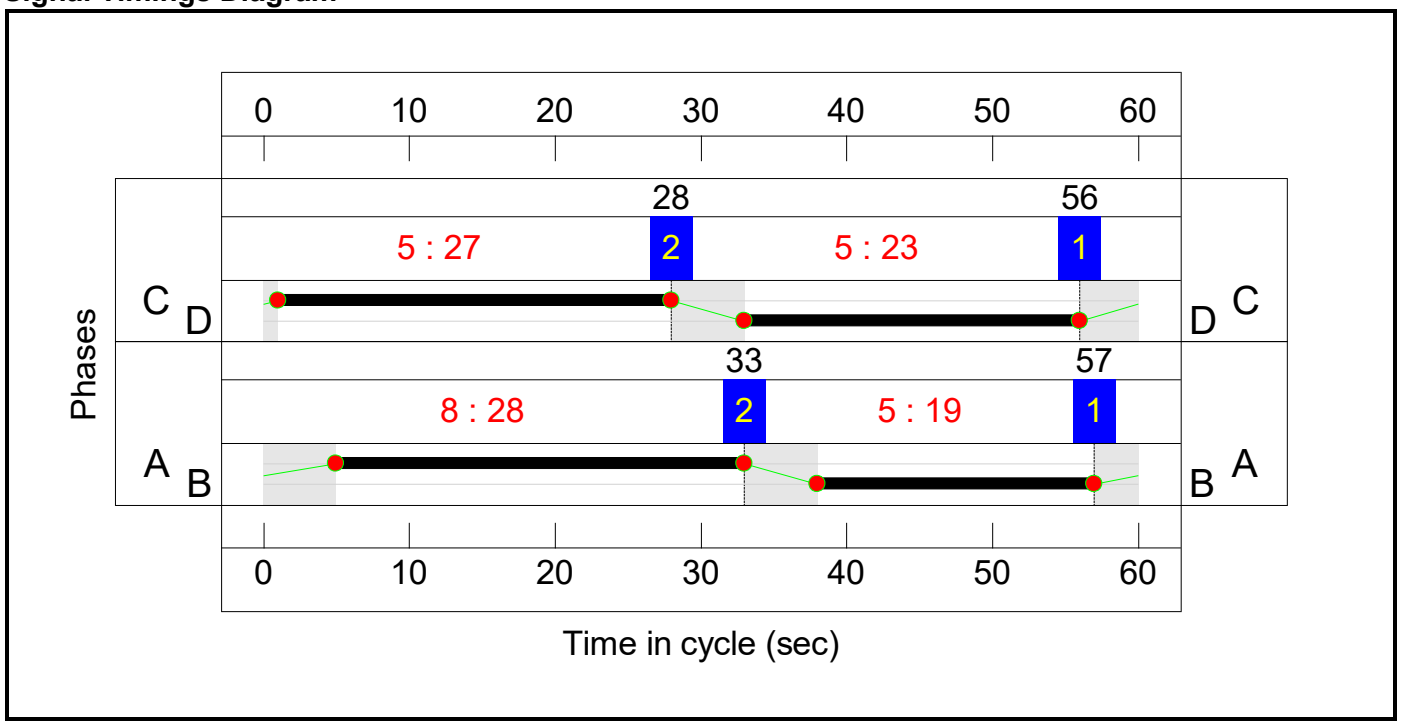
Stage Stream: 1

Stage	1	2
Duration	27	23
Change Point	56	28

Stage Stream: 2

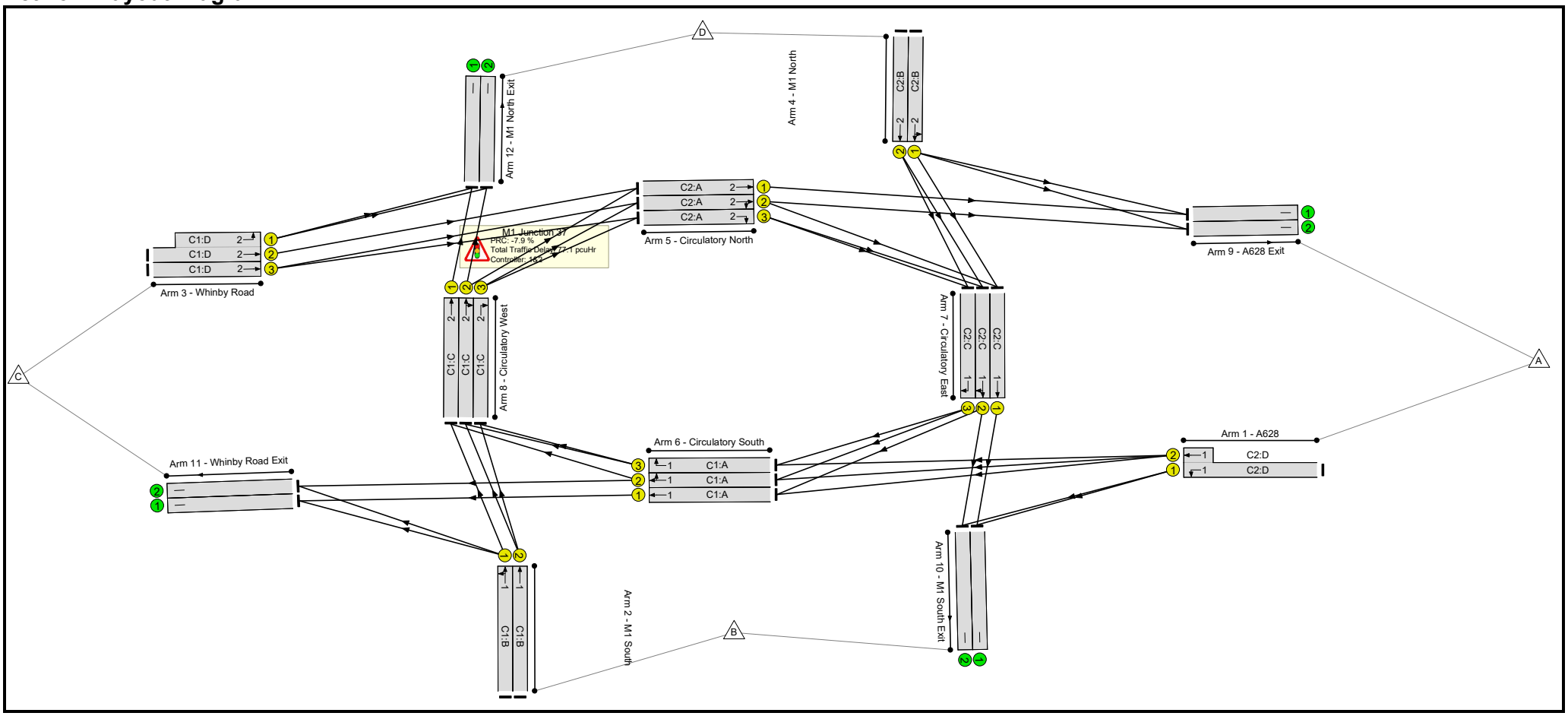
Stage	1	2
Duration	28	19
Change Point	57	33

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.1%**
M1 Junction 37	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.1%**
1/1+1/2	A628 Ahead Left	U	2:1	N/A	C2:D		1	23	-	1257	1846:3830	454+843	96.9 : 96.9%
2/1	M1 South Ahead Left	U	1:1	N/A	C1:B		1	27	-	850	1875	875	97.1%
2/2	M1 South Ahead	U	1:1	N/A	C1:B		1	27	-	550	1853	865	63.6%
3/2+3/1	Whinby Road Ahead Left	U	1:2	N/A	C1:D		1	25	-	664	1768:1741	701+379	61.5 : 61.5%
3/3	Whinby Road Ahead	U	1:2	N/A	C1:D		1	25	-	588	1781	772	76.2%
4/1	M1 North Ahead Left	U	2:2	N/A	C2:B		1	19	-	496	1859	620	80.0%
4/2	M1 North Ahead	U	2:2	N/A	C2:B		1	19	-	579	1868	623	93.0%
5/1	Circulatory North Ahead	U	2:2	N/A	C2:A		1	28	-	601	1898	917	65.5%
5/2	Circulatory North Right Ahead	U	2:2	N/A	C2:A		1	28	-	515	1898	917	56.1%
5/3	Circulatory North Right	U	2:2	N/A	C2:A		1	28	-	451	1898	917	49.2%
6/1	Circulatory South Ahead	U	1:1	N/A	C1:A		1	21	-	565	1909	700	80.7%
6/2	Circulatory South Right Ahead	U	1:1	N/A	C1:A		1	21	-	550	1906	699	78.7%
6/3	Circulatory South Right	U	1:1	N/A	C1:A		1	21	-	287	1888	692	41.5%
7/1	Circulatory East Ahead	U	2:1	N/A	C2:C		1	27	-	143	1868	872	16.4%

Full Input Data And Results

7/2	Circulatory East Right Ahead	U	2:1	N/A	C2:C		1	27	-	616	1866	871	70.7%
7/3	Circulatory East Right	U	2:1	N/A	C2:C		1	27	-	414	1859	868	47.7%
8/1	Circulatory West Ahead	U	1:2	N/A	C1:C		1	25	-	73	1898	822	8.9%
8/2	Circulatory West Right Ahead	U	1:2	N/A	C1:C		1	25	-	459	1898	822	55.8%
8/3	Circulatory West Right	U	1:2	N/A	C1:C		1	25	-	378	1898	822	46.0%
9/1	A628 Exit	U	N/A	N/A	-		-	-	-	846	Inf	Inf	0.0%
9/2	A628 Exit	U	N/A	N/A	-		-	-	-	623	Inf	Inf	0.0%
10/1	M1 South Exit	U	N/A	N/A	-		-	-	-	363	Inf	Inf	0.0%
10/2	M1 South Exit	U	N/A	N/A	-		-	-	-	665	Inf	Inf	0.0%
11/1	Whinby Road Exit	U	N/A	N/A	-		-	-	-	990	Inf	Inf	0.0%
11/2	Whinby Road Exit	U	N/A	N/A	-		-	-	-	902	Inf	Inf	0.0%
12/1	M1 North Exit	U	N/A	N/A	-		-	-	-	189	Inf	Inf	0.0%
12/2	M1 North Exit	U	N/A	N/A	-		-	-	-	406	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**37.6**	**39.5**	**0.0**	**77.1**	**-**	**-**	**-**	**-**
M1 Junction 37	**-**	**-**	**0**	**0**	**0**	**37.6**	**39.5**	**0.0**	**77.1**	**-**	**-**	**-**	**-**
1/1+1/2	1257	1257	-	-	-	5.9	10.3	-	16.2	46.5	18.6	10.3	28.9
2/1	850	850	-	-	-	3.7	9.6	-	13.3	56.3	13.7	9.6	23.3
2/2	550	550	-	-	-	1.9	0.9	-	2.7	17.8	6.9	0.9	7.7
3/2+3/1	664	664	-	-	-	2.2	0.8	-	3.0	16.5	5.3	0.8	6.1
3/3	588	588	-	-	-	2.3	1.6	-	3.9	24.0	8.2	1.6	9.7
4/1	496	496	-	-	-	2.5	1.9	-	4.5	32.3	7.4	1.9	9.4
4/2	579	579	-	-	-	3.1	5.3	-	8.4	52.5	9.2	5.3	14.5
5/1	601	601	-	-	-	2.3	0.9	-	3.2	19.4	9.4	0.9	10.3
5/2	515	515	-	-	-	2.5	0.6	-	3.1	21.9	7.0	0.6	7.6
5/3	451	451	-	-	-	0.8	0.5	-	1.3	10.6	7.1	0.5	7.6
6/1	565	565	-	-	-	2.0	2.0	-	4.0	25.8	7.7	2.0	9.7
6/2	550	550	-	-	-	4.2	1.8	-	6.0	39.1	8.7	1.8	10.5
6/3	287	287	-	-	-	0.0	0.4	-	0.4	4.9	1.6	0.4	1.9
7/1	143	143	-	-	-	0.0	0.1	-	0.1	2.8	1.6	0.1	1.7
7/2	616	616	-	-	-	0.4	1.2	-	1.6	9.3	6.8	1.2	8.0
7/3	414	414	-	-	-	1.4	0.5	-	1.9	16.2	6.9	0.5	7.3
8/1	73	73	-	-	-	0.1	0.0	-	0.1	5.1	1.1	0.0	1.2
8/2	459	459	-	-	-	1.4	0.6	-	2.1	16.3	5.5	0.6	6.1
8/3	378	378	-	-	-	0.7	0.4	-	1.1	10.7	1.5	0.4	1.9
9/1	846	846	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	623	623	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	363	363	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	665	665	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	990	990	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

11/2	902	902	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	189	189	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	406	406	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 - Northbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	-7.9	Total Delay for Signalled Lanes (pcuHr):	26.43	Cycle Time (s):	60
C1 - Northbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	18.1	Total Delay for Signalled Lanes (pcuHr):	10.26	Cycle Time (s):	60
C2 - Southbound Gyratory	Stream: 1 PRC for Signalled Lanes (%):	-7.7	Total Delay for Signalled Lanes (pcuHr):	19.81	Cycle Time (s):	60
C2 - Southbound Gyratory	Stream: 2 PRC for Signalled Lanes (%):	-3.3	Total Delay for Signalled Lanes (pcuHr):	20.60	Cycle Time (s):	60
	PRC Over All Lanes (%):	-7.9	Total Delay Over All Lanes(pcuHr):	77.09		

Appendix J-6

M1 Junction 37 – Merge and Diverge Assessments

Merge Diagram

M1 Junction 37 | Northbound | Base 2022 (AM)

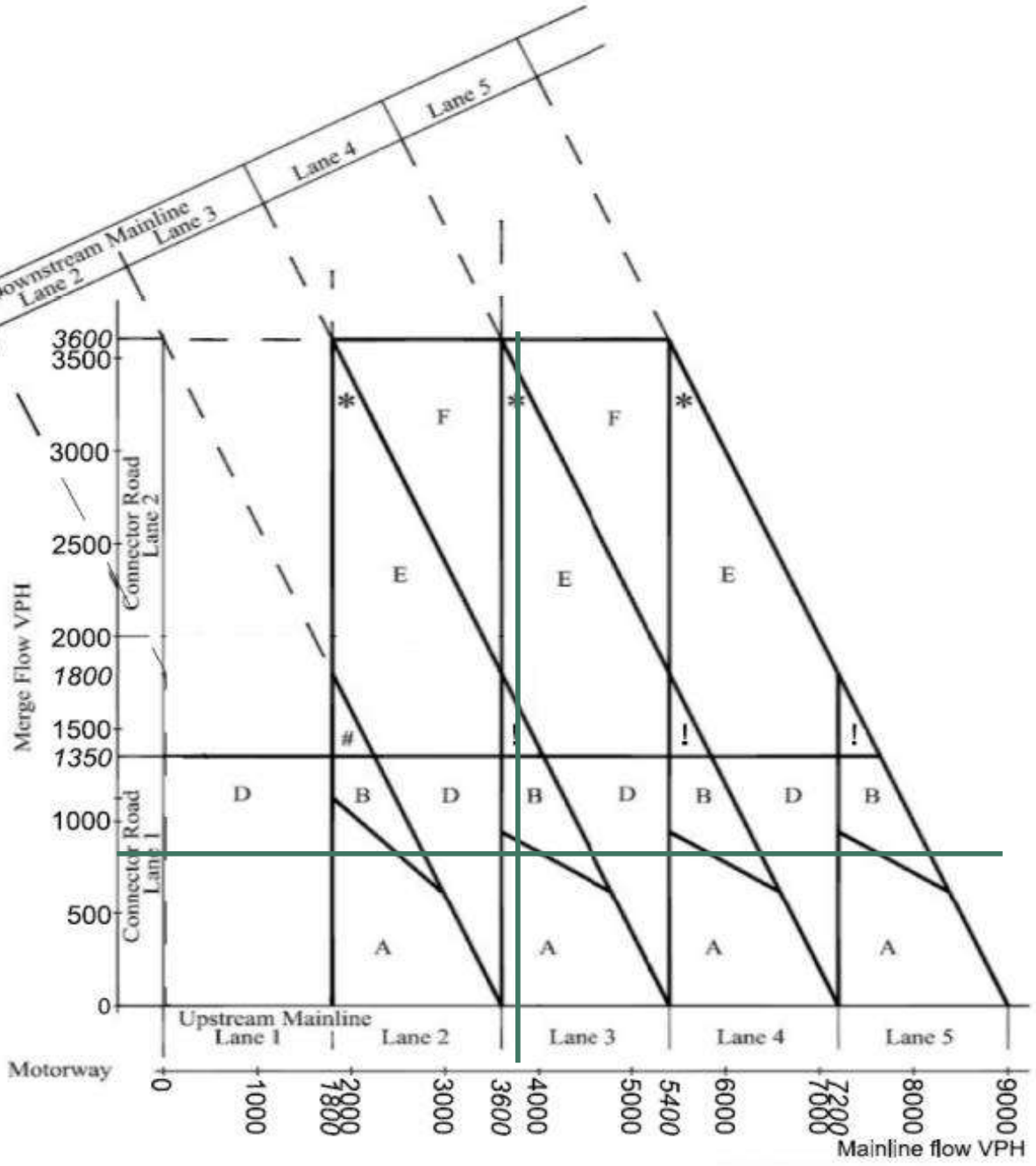
Input Flows

Upstream mainline flow:	3791	vph
Merge flow:	816	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	A

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Northbound | 2026 Do Minimum (AM)

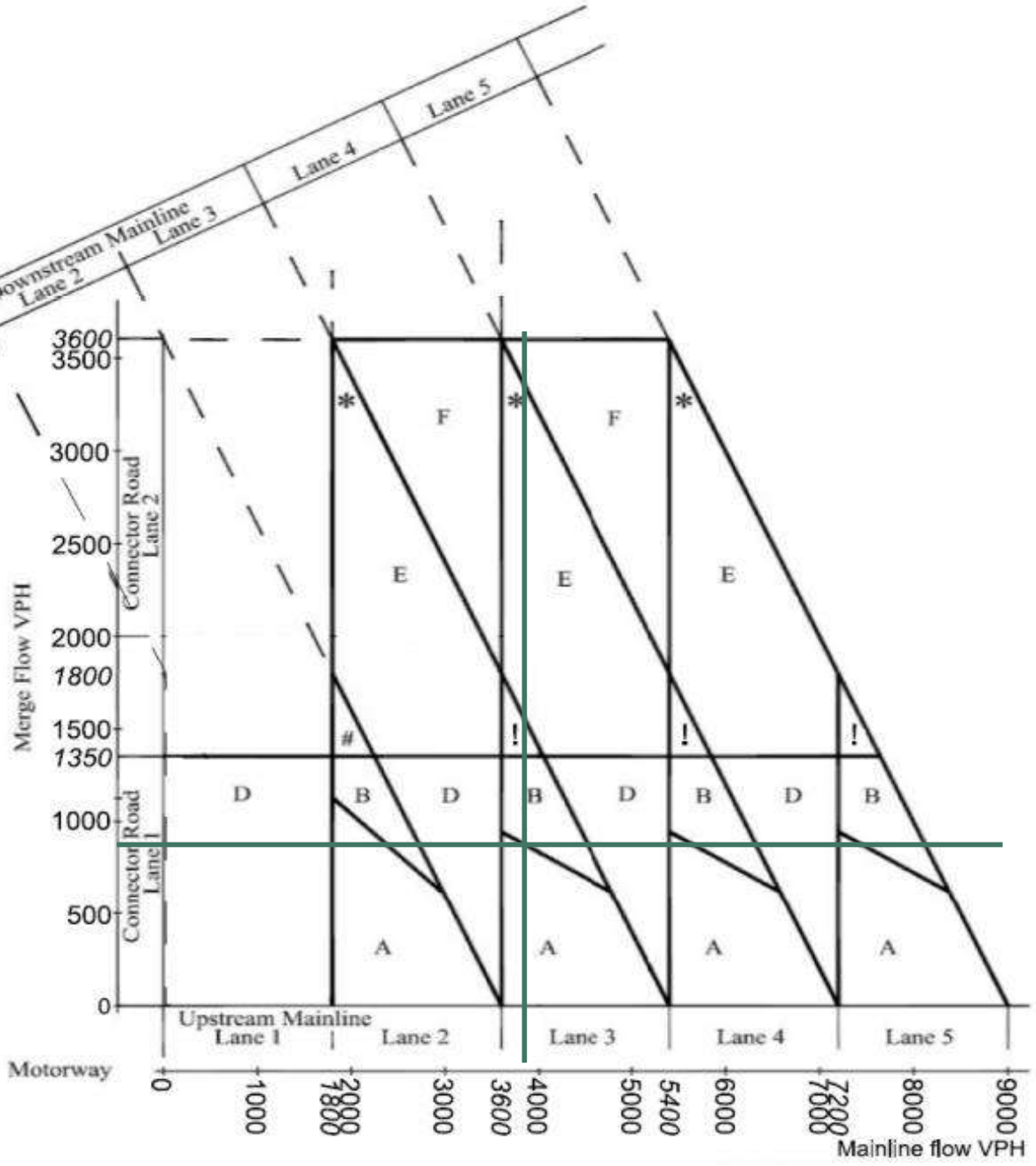
Input Flows

Upstream mainline flow:	3858	vph
Merge flow:	866	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	B

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Northbound | 2026 With Development (AM)

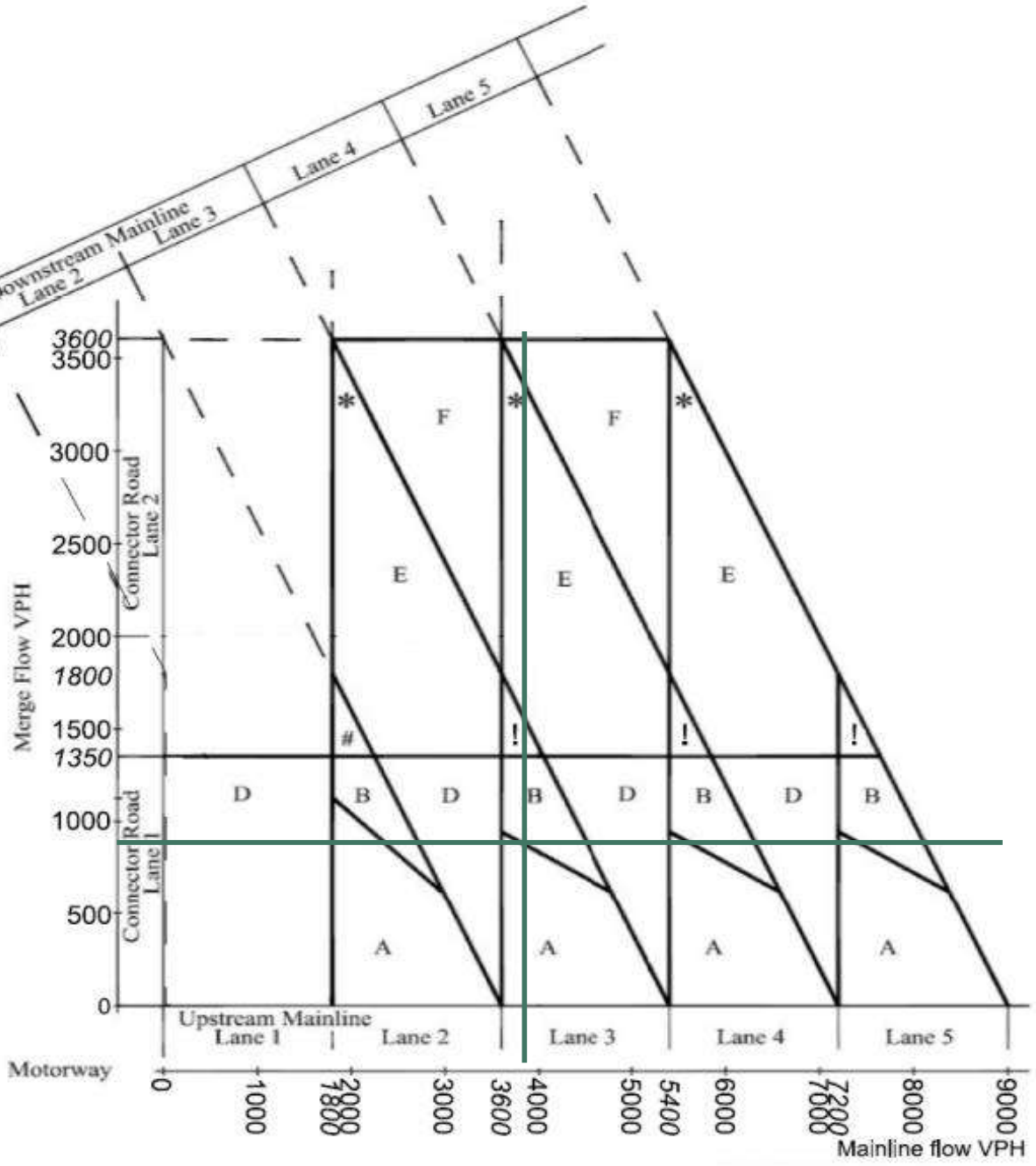
Input Flows

Upstream mainline flow:	3858	vph
Merge flow:	878	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	B

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Northbound | Base 2022 (PM)

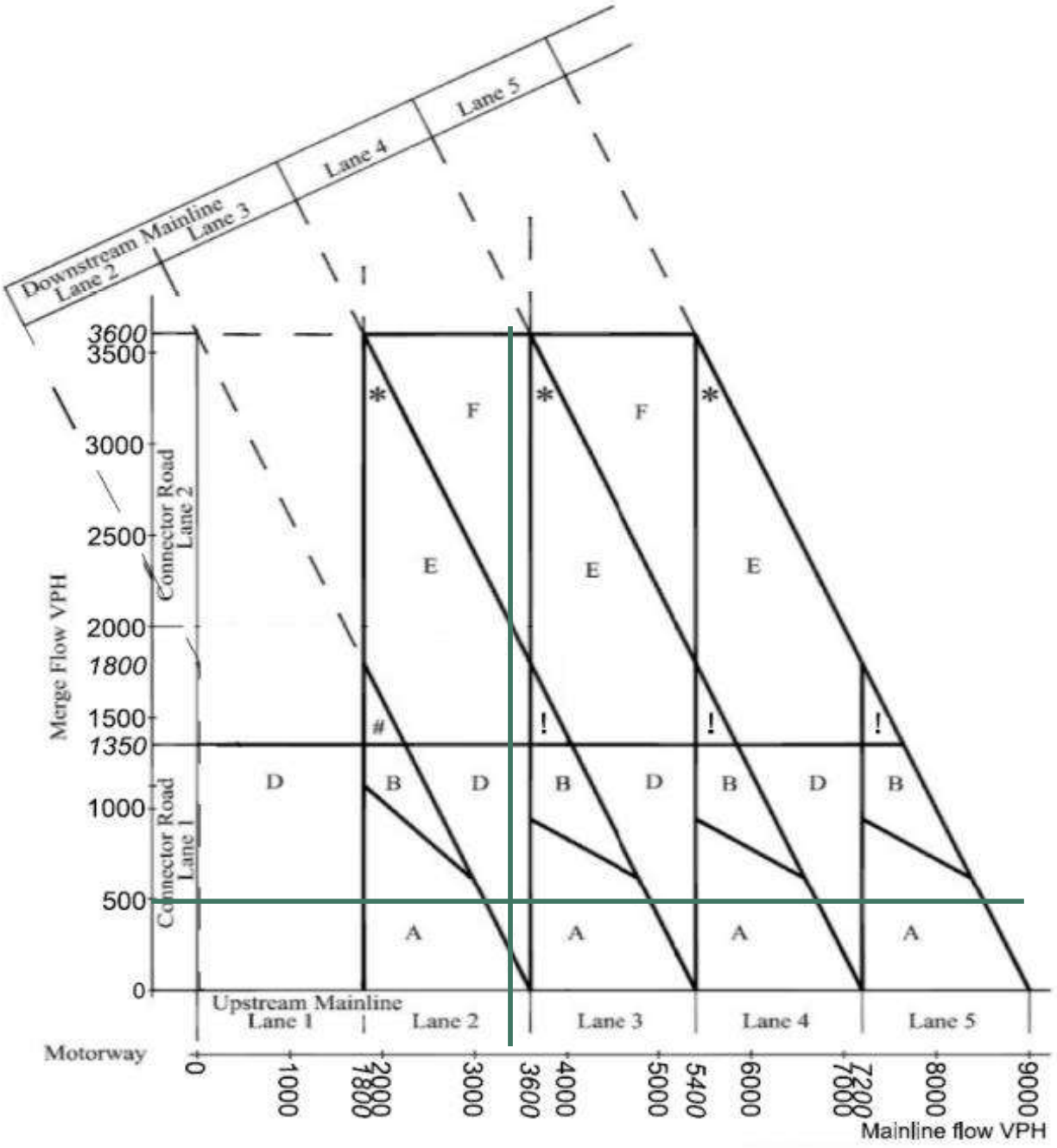
Input Flows

Upstream mainline flow:	3400	vph
Merge flow:	484	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	2
Downstream Mainline Lanes:	3
Diverge Type:	D

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Northbound | 2026 Do Minimum (PM)

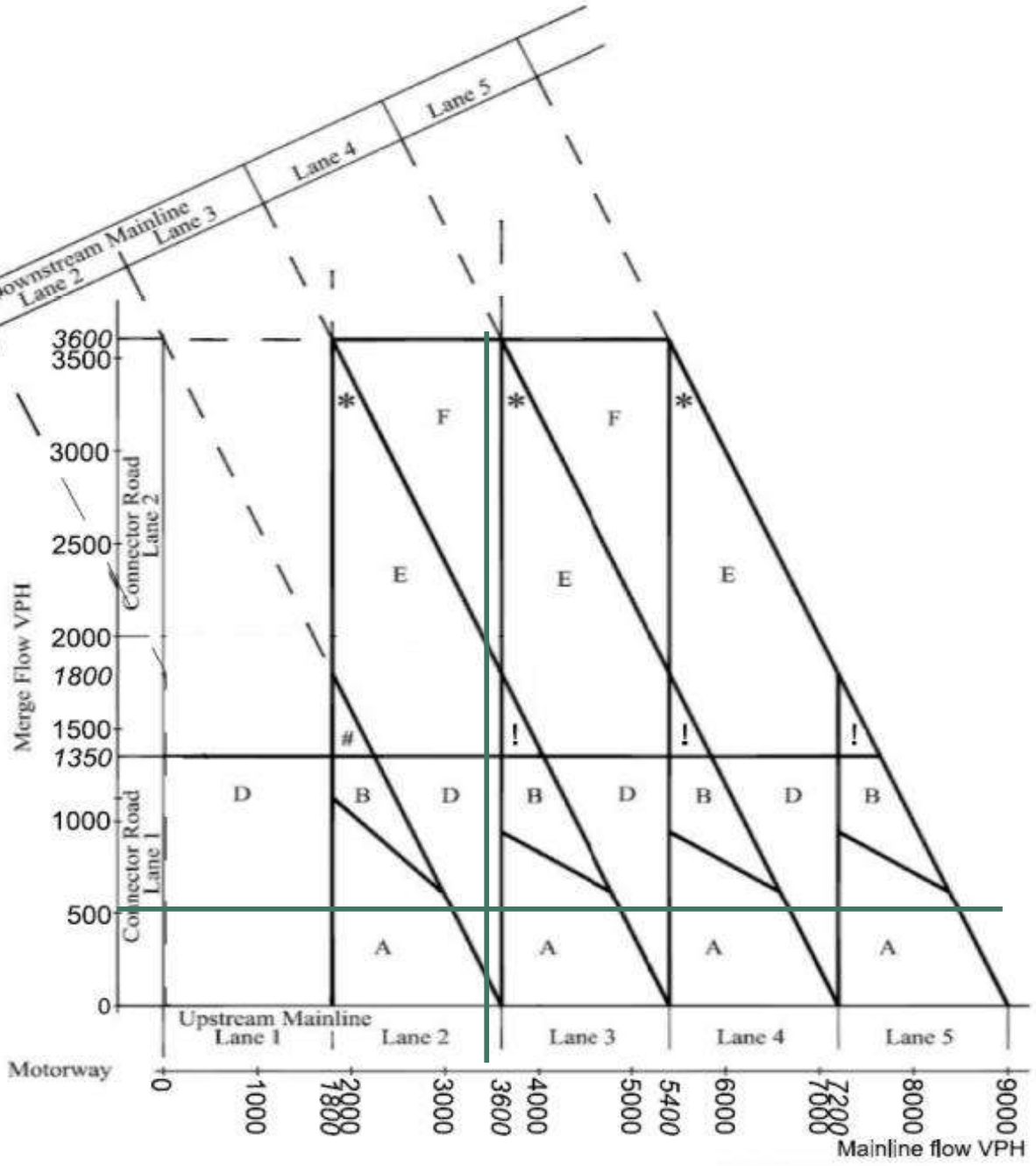
Input Flows

Upstream mainline flow:	3459	vph
Merge flow:	519	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	2
Downstream Mainline Lanes:	3
Diverge Type:	D

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Northbound | 2026 With Development (PM)

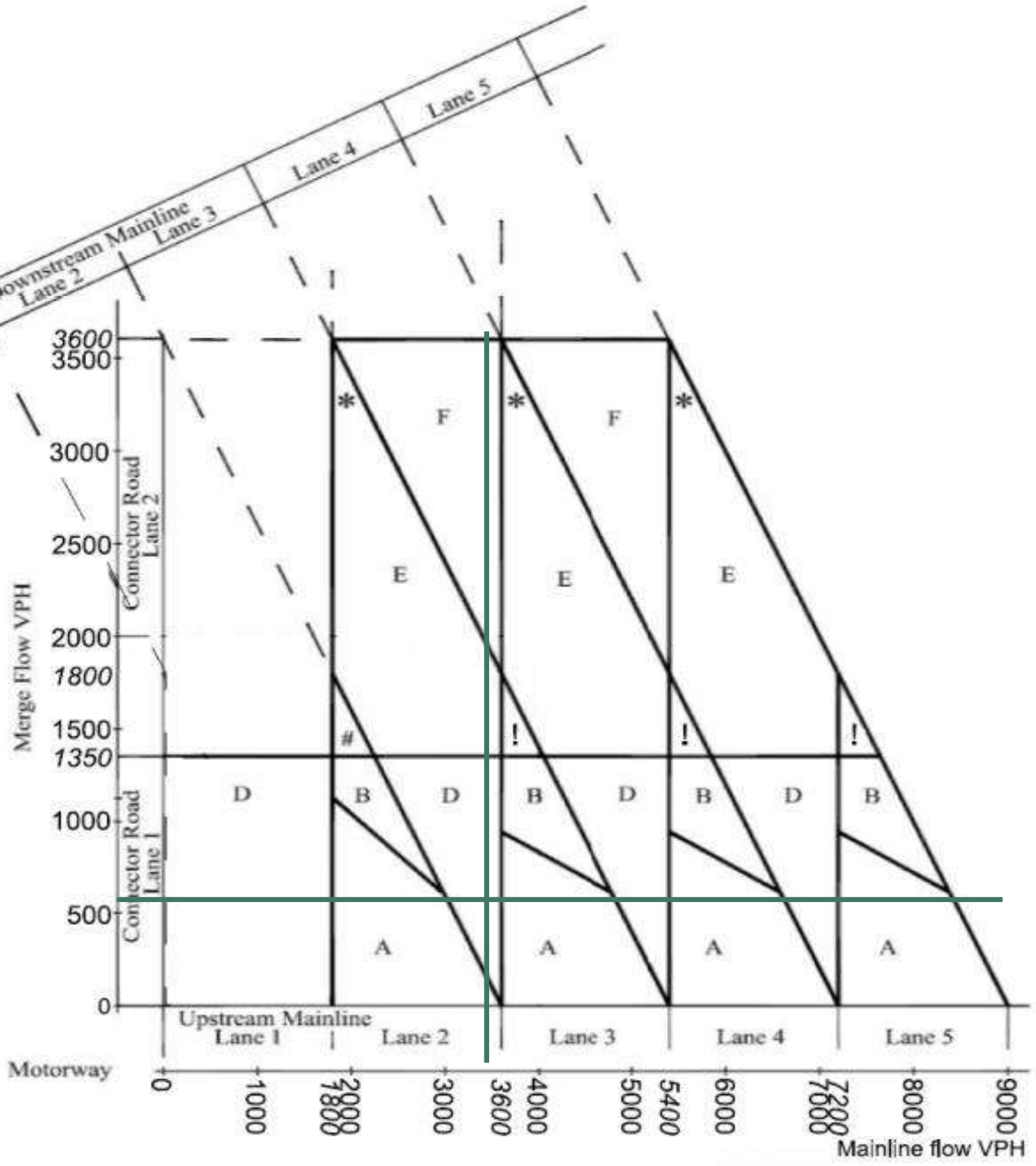
Input Flows

Upstream mainline flow:	3459	vph
Merge flow:	570	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	2
Downstream Mainline Lanes:	3
Diverge Type:	D

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Southbound | Base 2022 (AM)

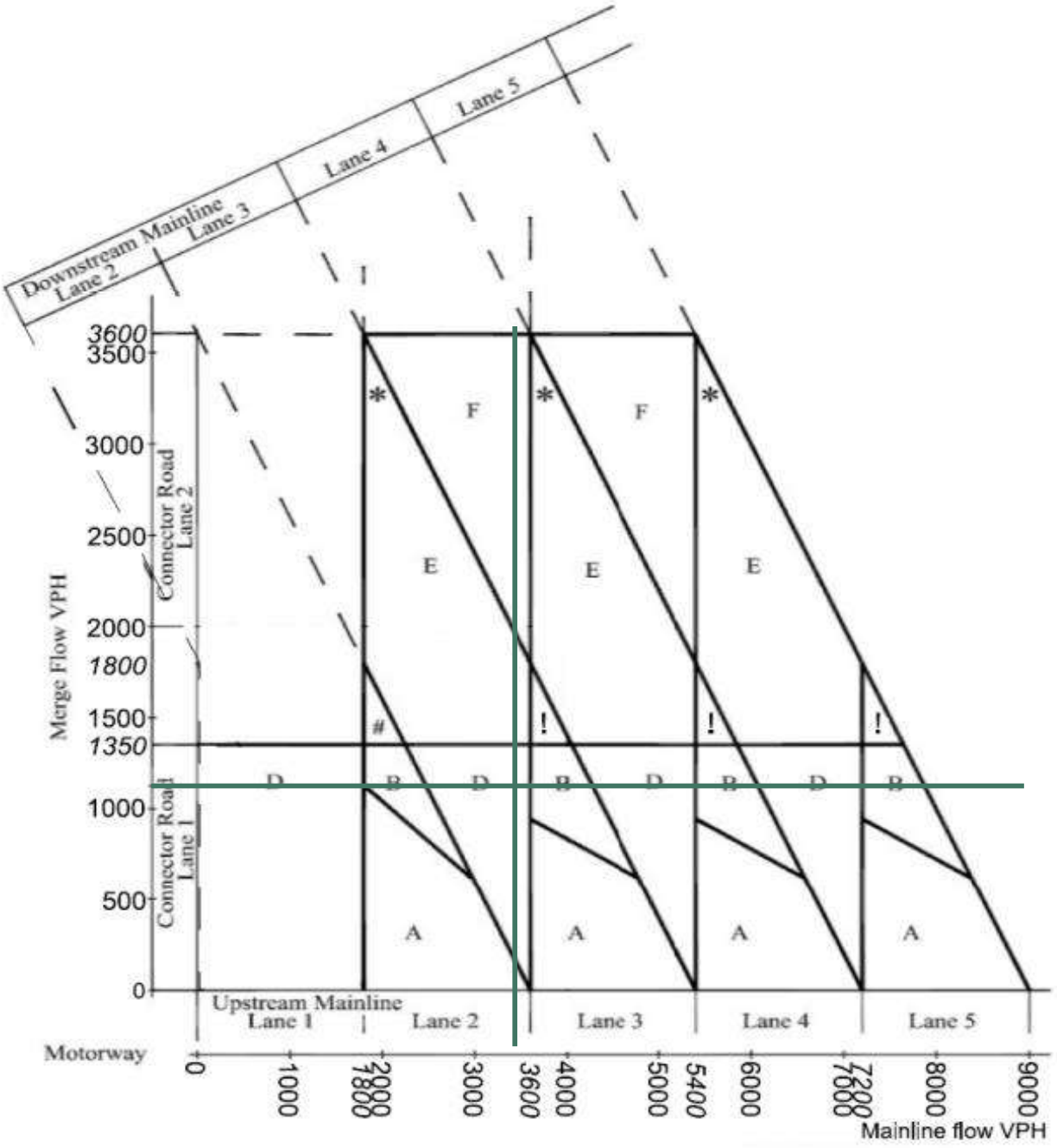
Input Flows

Upstream mainline flow:	3448	vph
Merge flow:	1117	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	2
Downstream Mainline Lanes:	3
Diverge Type:	D

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Southbound | 2026 Do Minimum (AM)

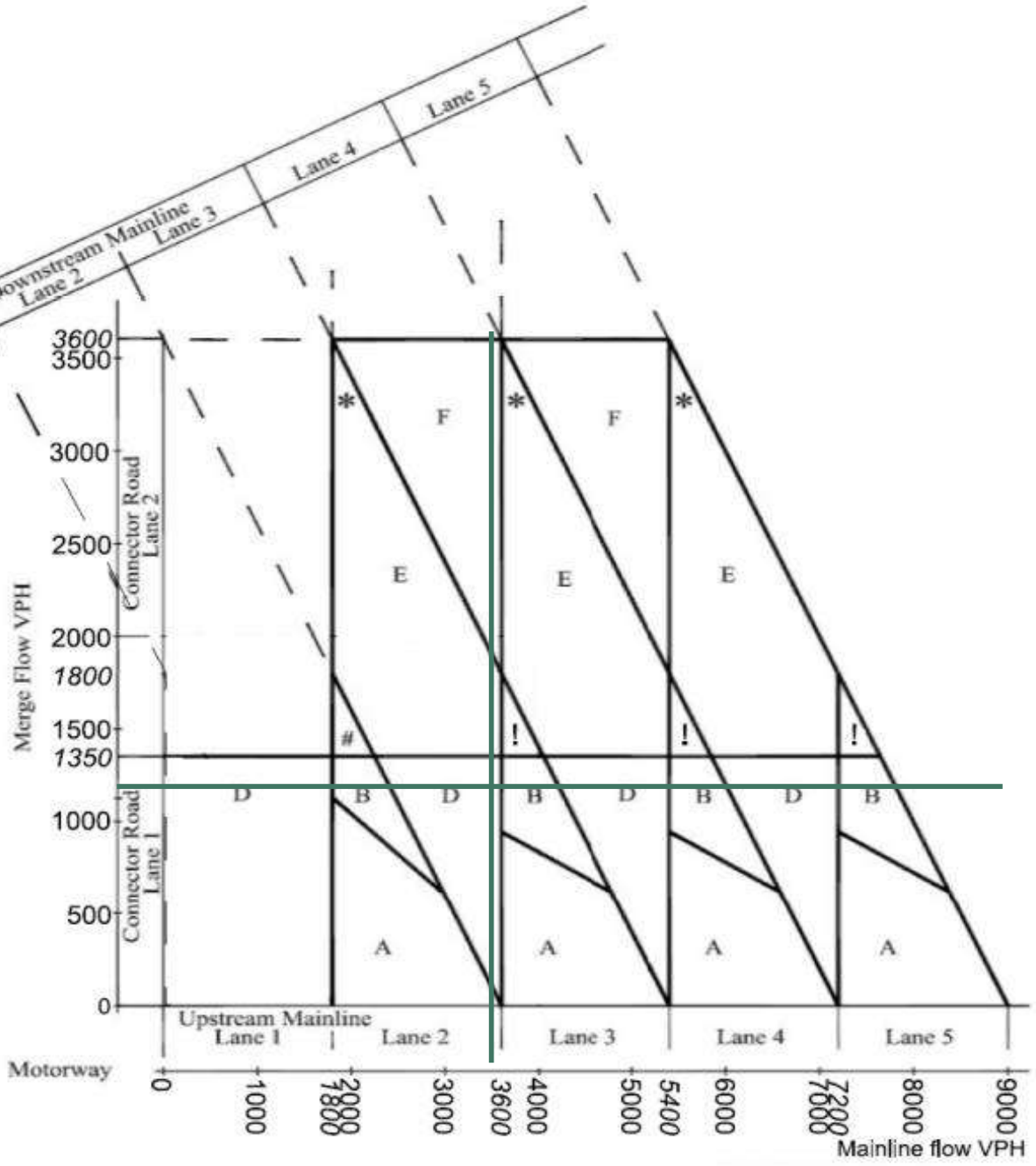
Input Flows

Upstream mainline flow:	3509	vph
Merge flow:	1179	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	2
Downstream Mainline Lanes:	3
Diverge Type:	D

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Southbound | 2026 With Development (AM)

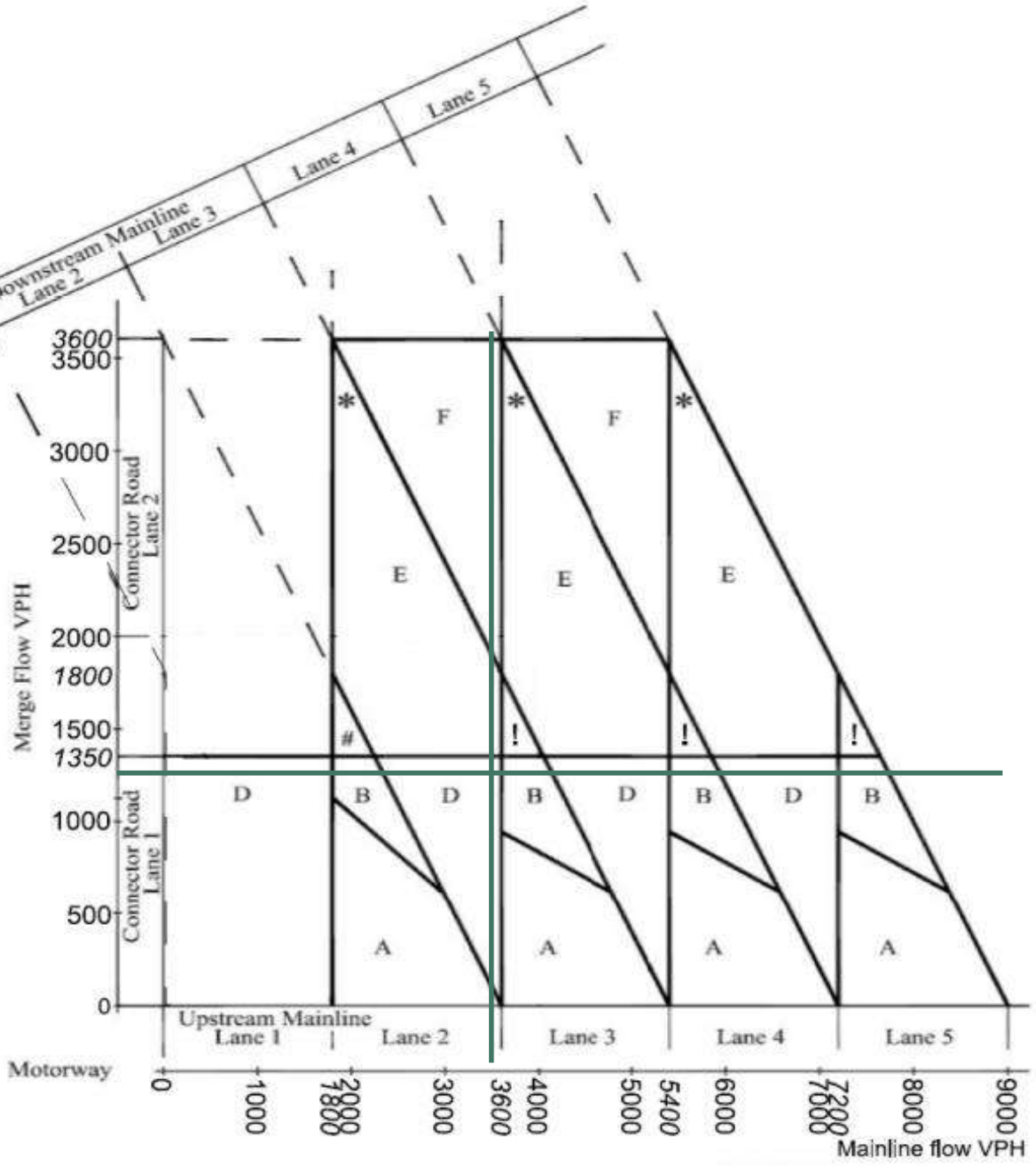
Input Flows

Upstream mainline flow:	3509	vph
Merge flow:	1253	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	2
Downstream Mainline Lanes:	3
Diverge Type:	D

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Southbound | Base 2022 (PM)

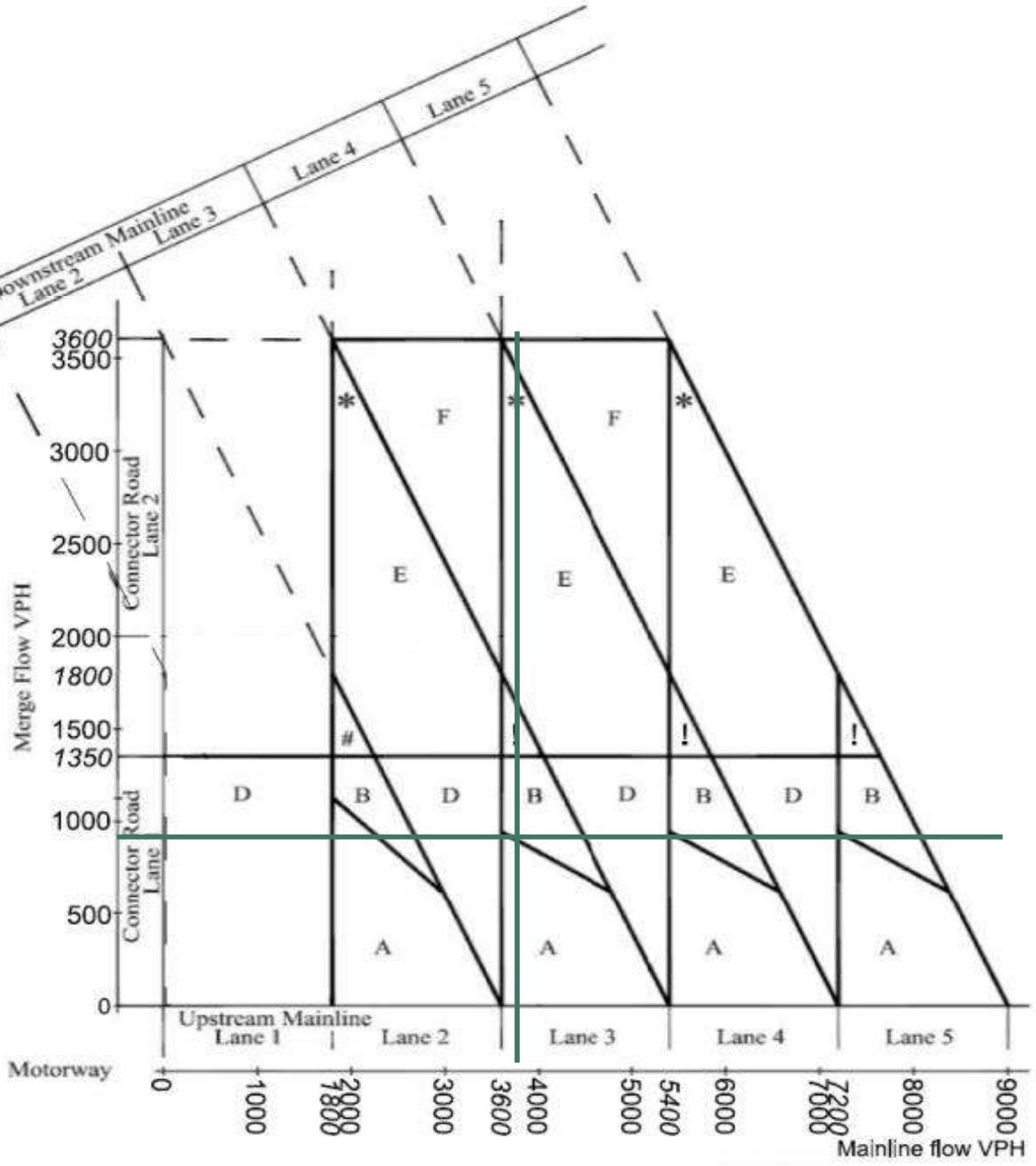
Input Flows

Upstream mainline flow:	3782	vph
Merge flow:	908	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	B

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Southbound | 2026 Do Minimum (PM)

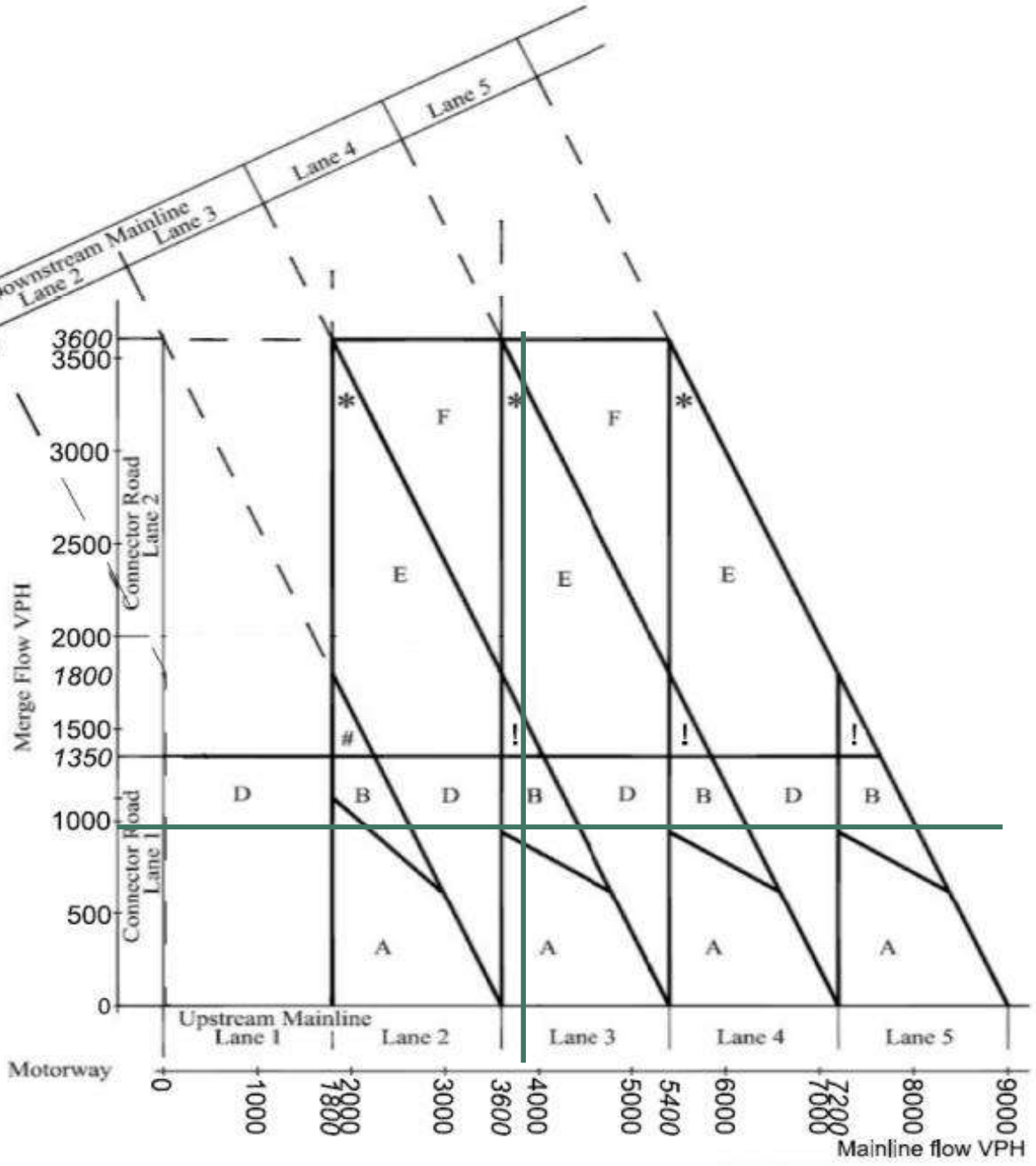
Input Flows

Upstream mainline flow:	3848	vph
Merge flow:	961	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	B

Figure 3.12b Motorway merging diagram



Merge Diagram

M1 Junction 37 | Southbound | 2026 With Development (PM)

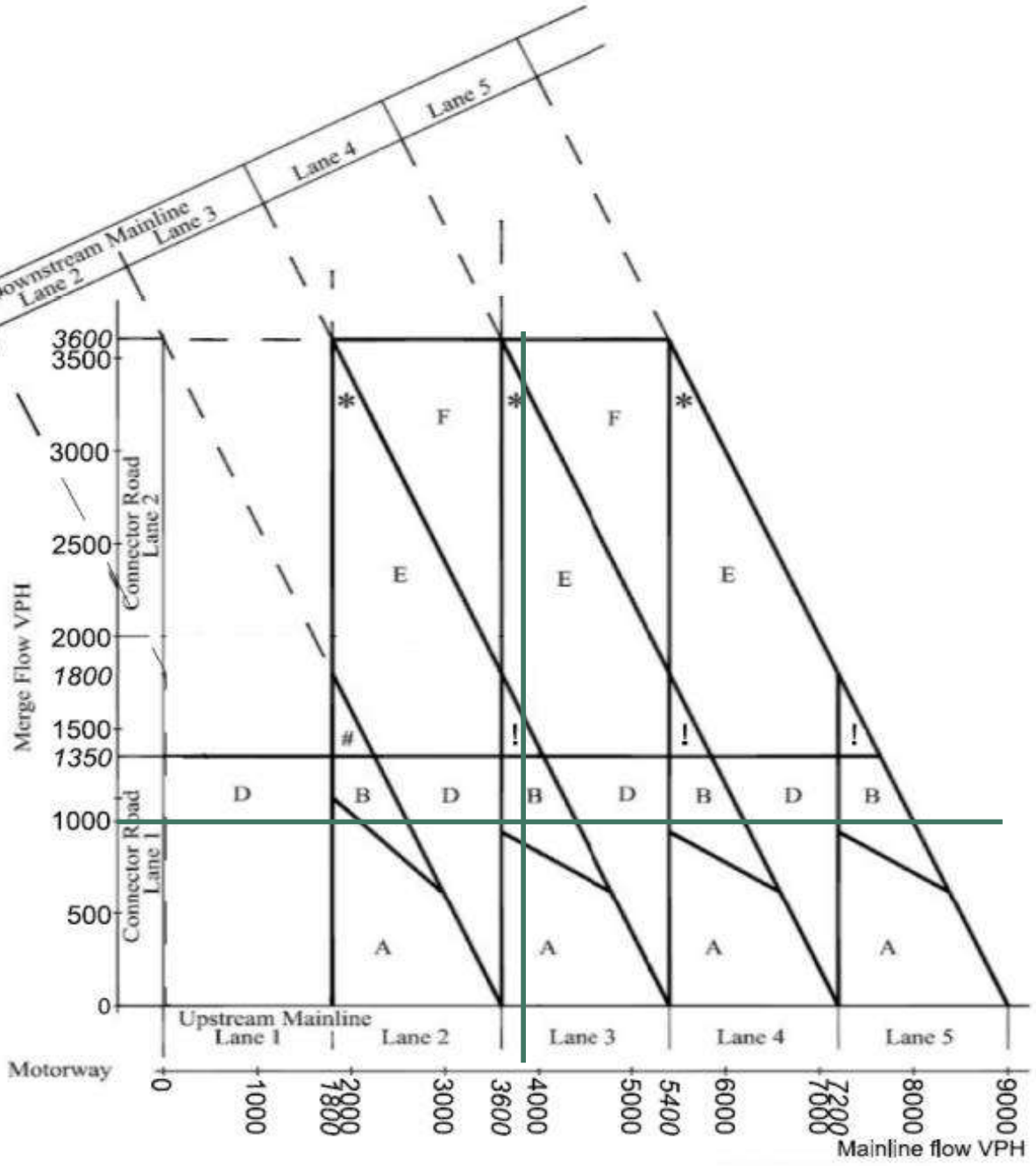
Input Flows

Upstream mainline flow:	3848	vph
Merge flow:	988	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	B

Figure 3.12b Motorway merging diagram



Diverge Diagram

M1 Junction 37 | Northbound | Base 2022 (AM)

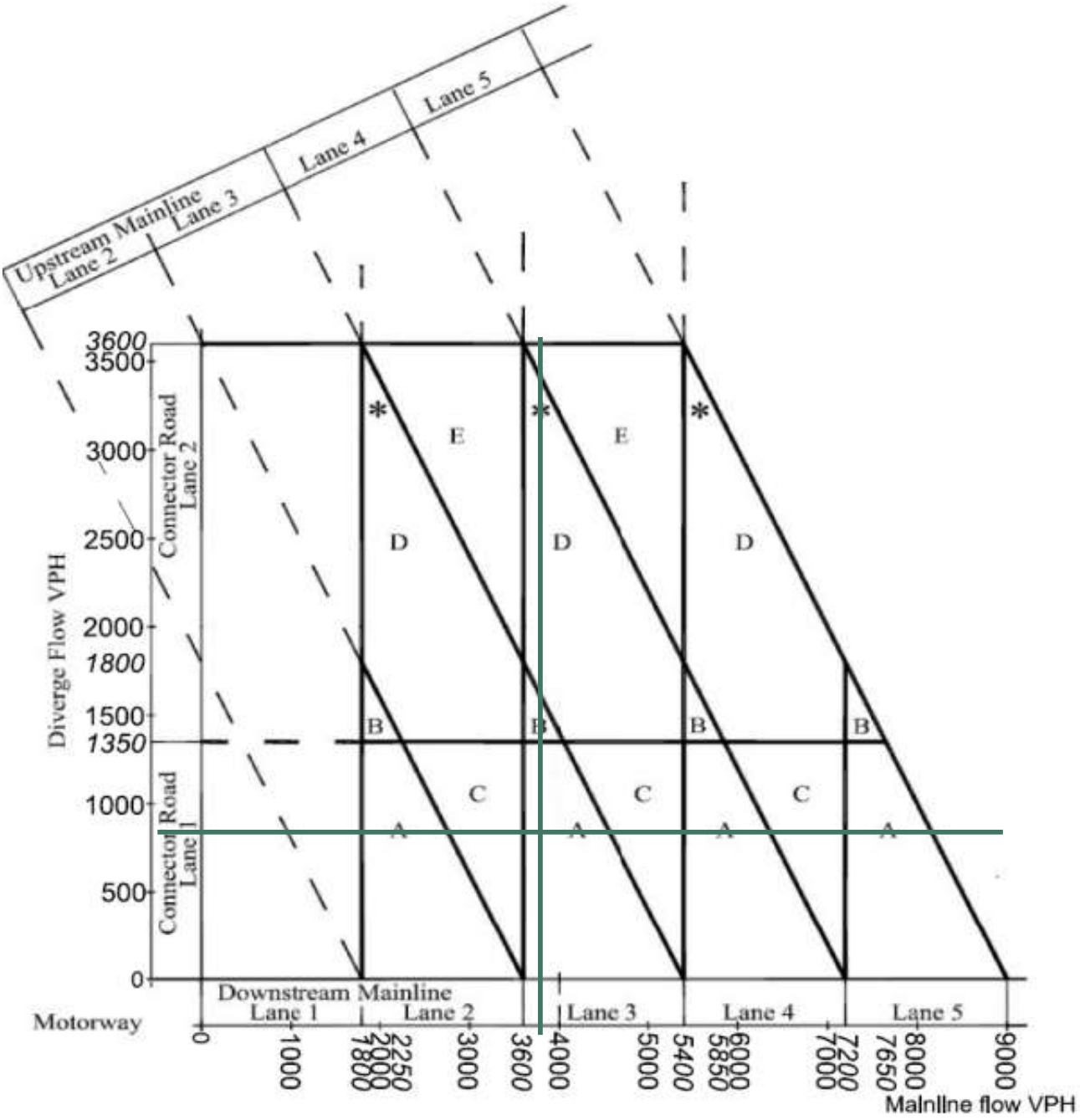
Input Flows

Upstream mainline flow:	3791	vph
Merge flow:	835	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	A

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Northbound | 2026 Do Minimum (AM)

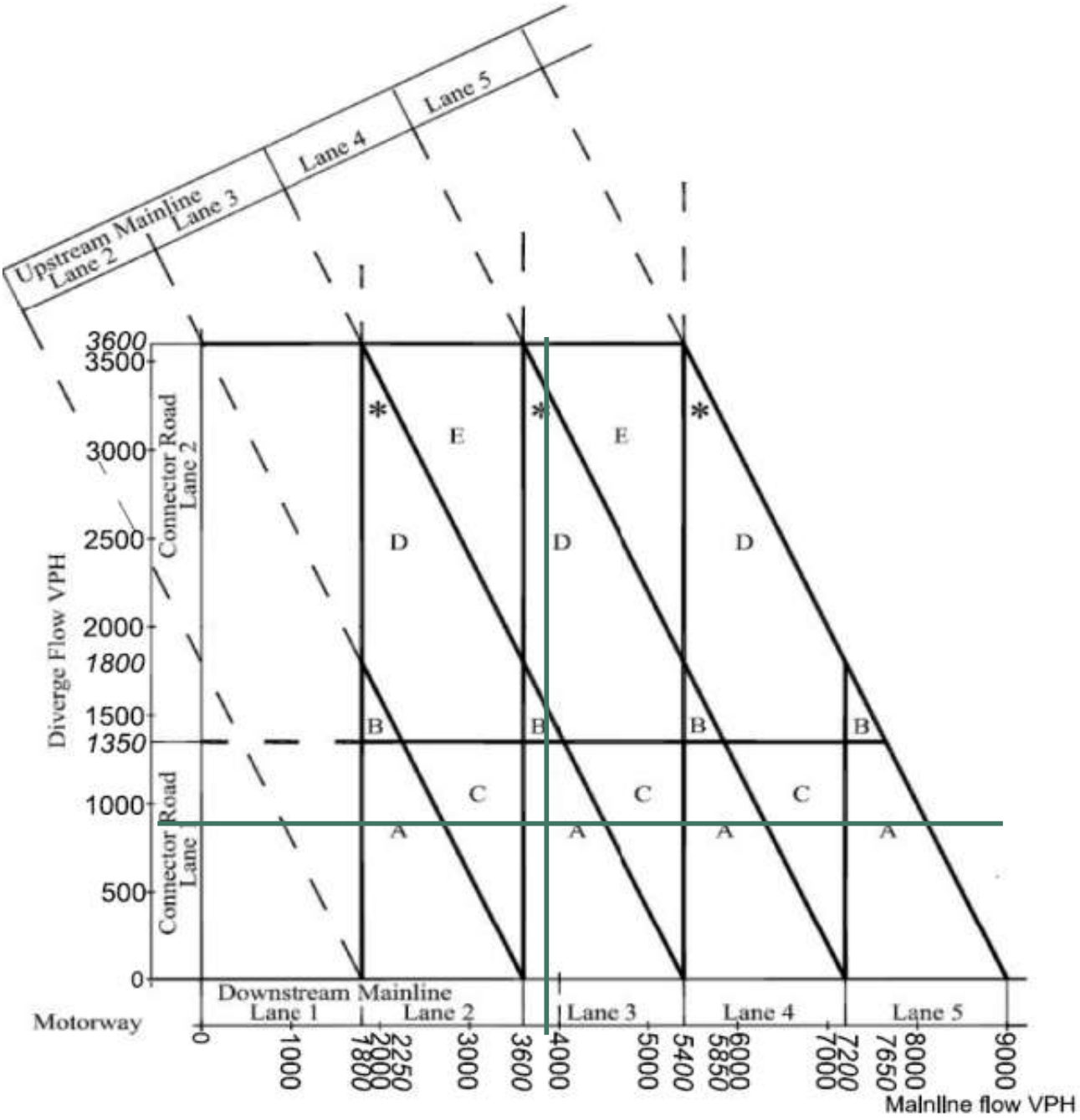
Input Flows

Upstream mainline flow:	3858	vph
Merge flow:	884	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	A

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Northbound | 2026 With Development (AM)

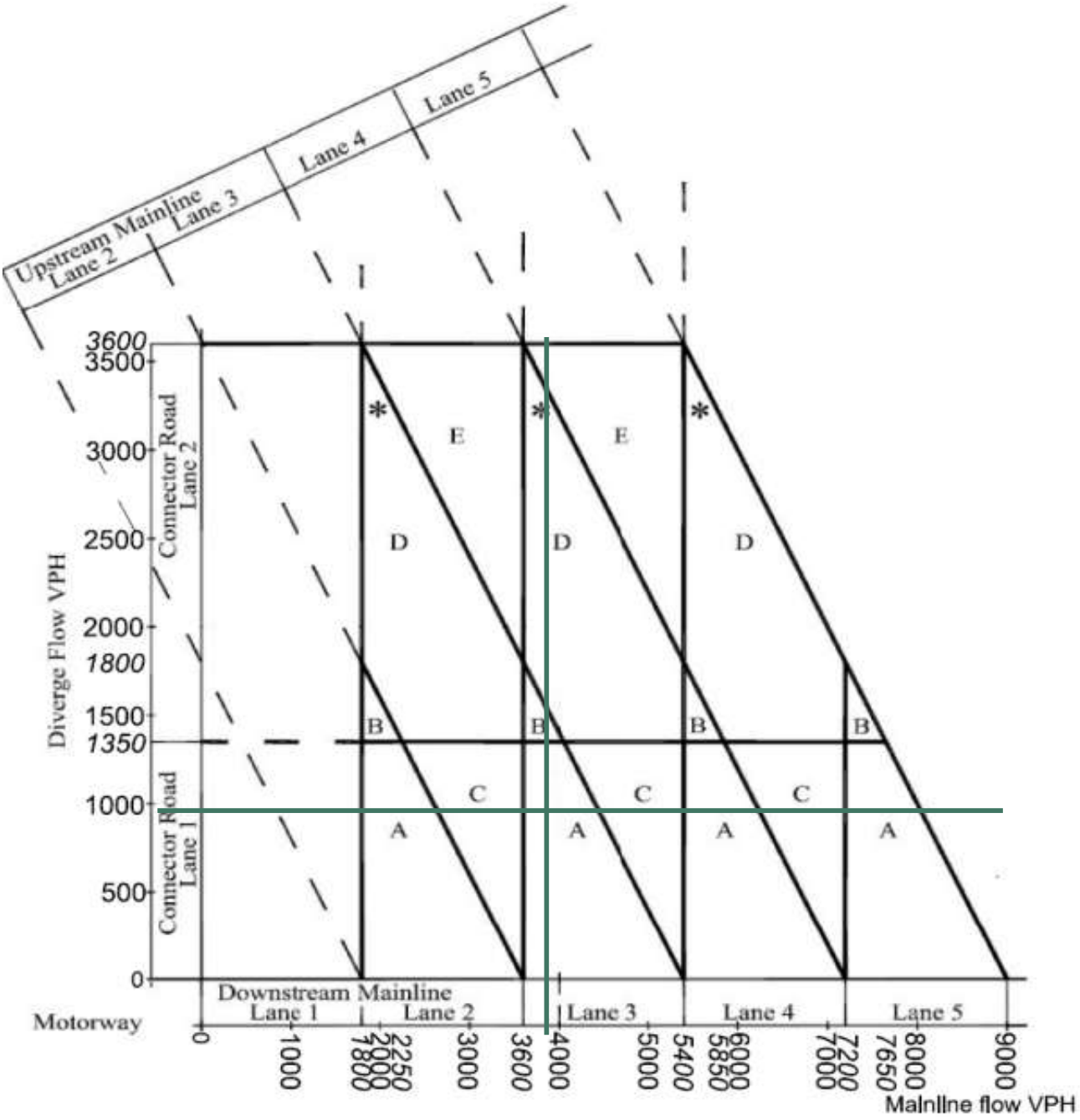
Input Flows

Upstream mainline flow:	3858	vph
Merge flow:	958	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	A

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Northbound | Base 2022 (PM)

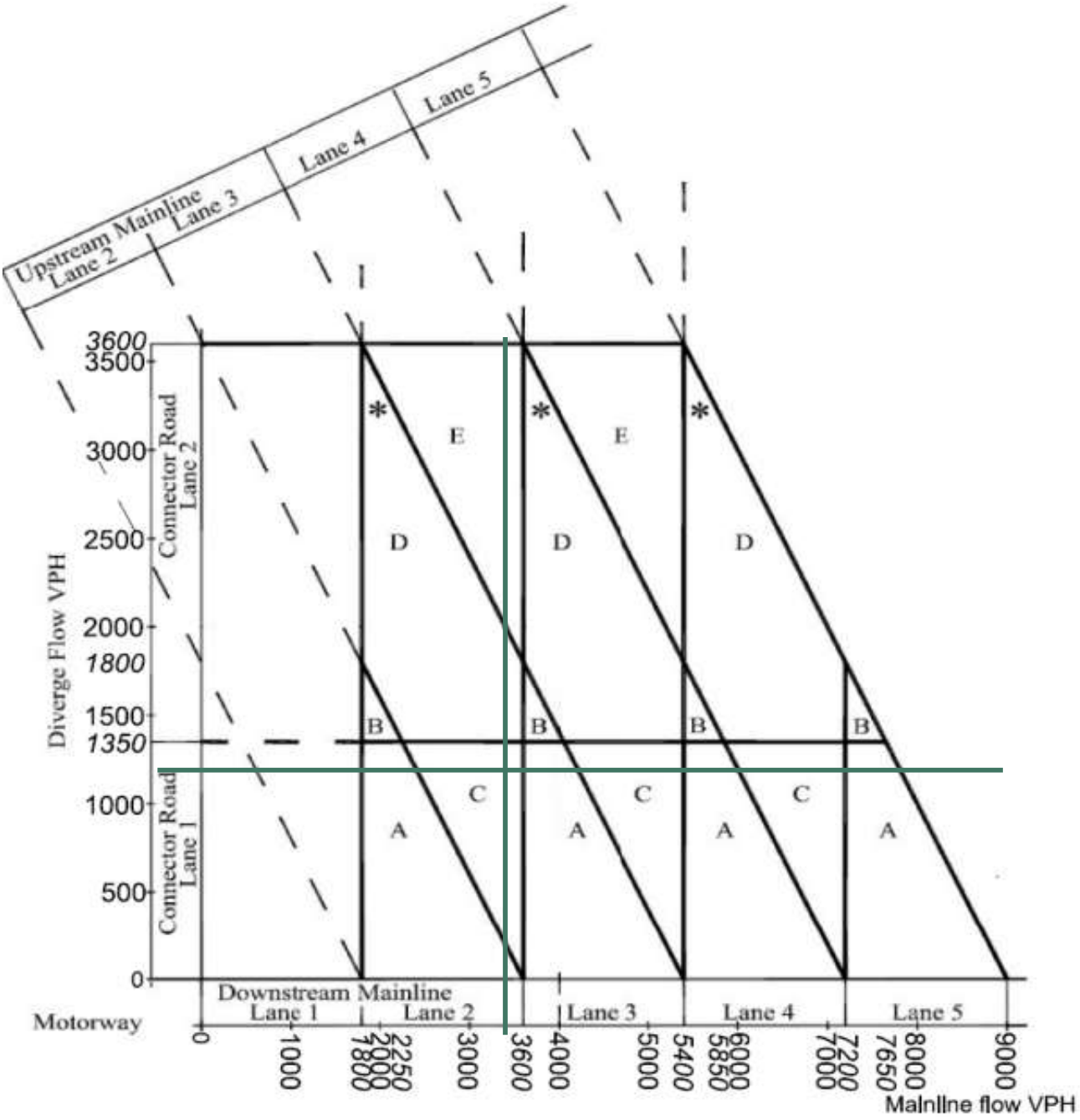
Input Flows

Upstream mainline flow:	3400	vph
Merge flow:	1186	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	2
Diverge Type:	C

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Northbound | 2026 Do Minimum (PM)

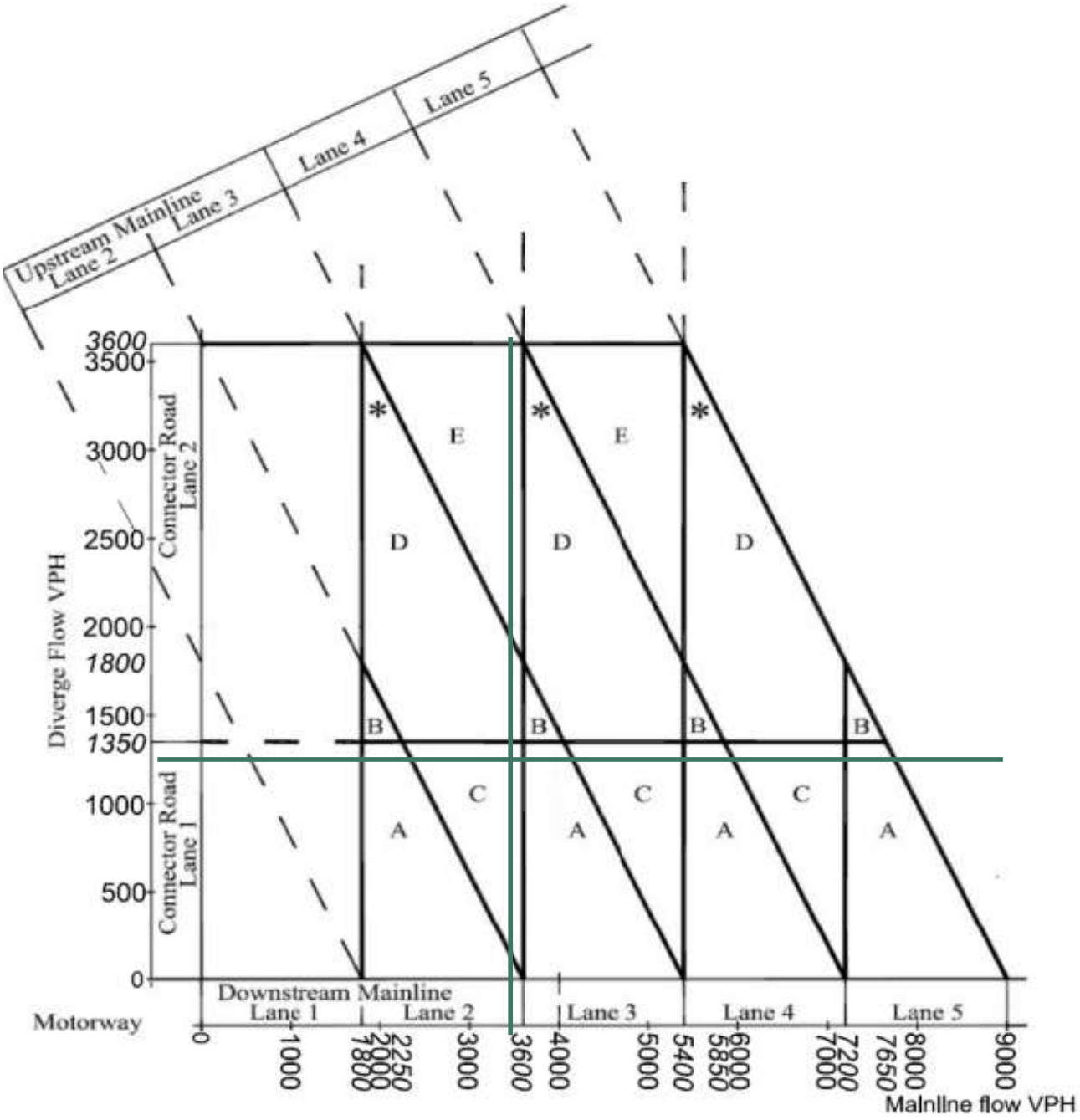
Input Flows

Upstream mainline flow:	3459	vph
Merge flow:	1247	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	2
Diverge Type:	C

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Northbound | 2026 With Development (PM)

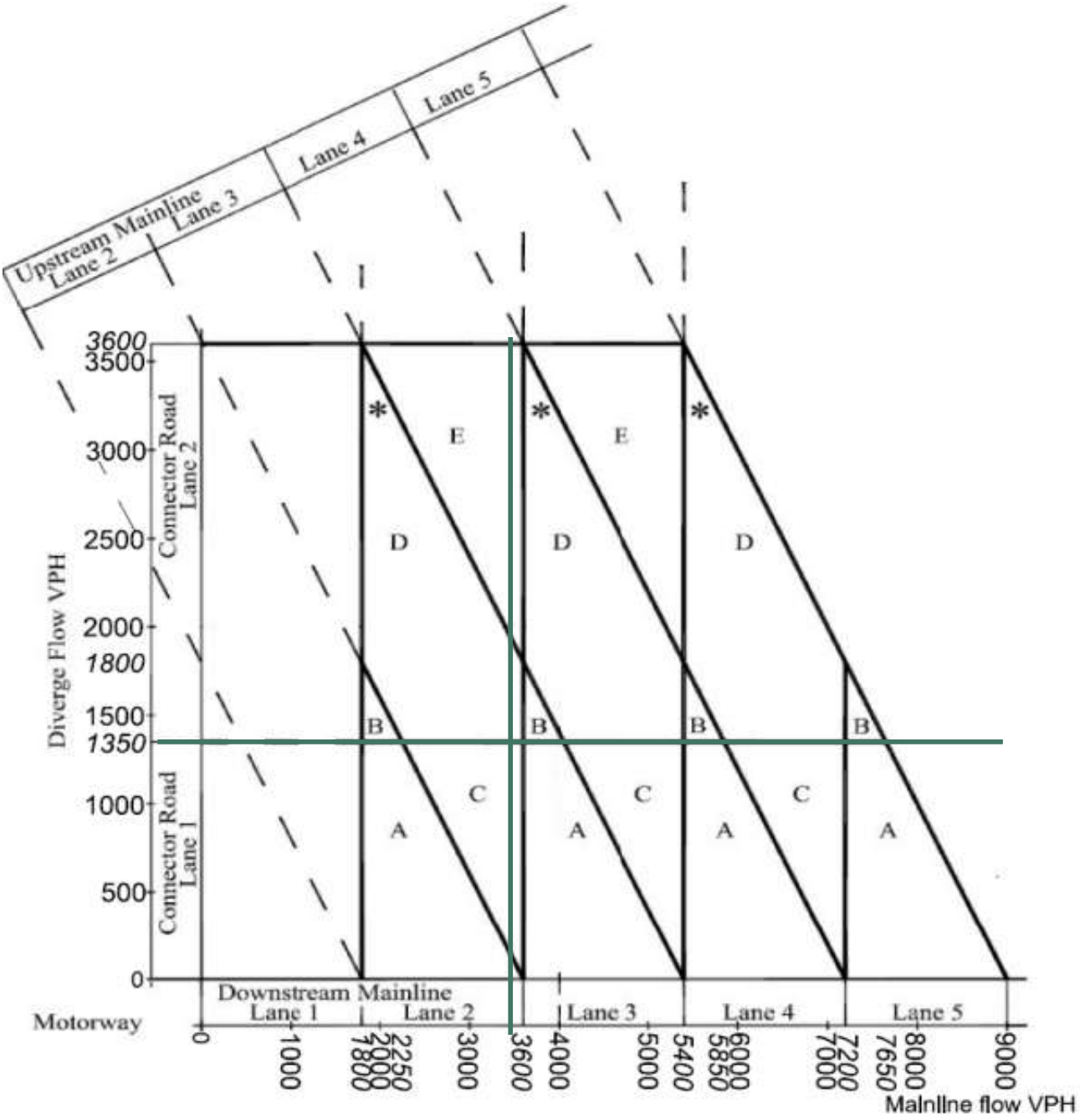
Input Flows

Upstream mainline flow:	3459	vph
Merge flow:	1346	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	2
Diverge Type:	C

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Southbound | Base 2022 (AM)

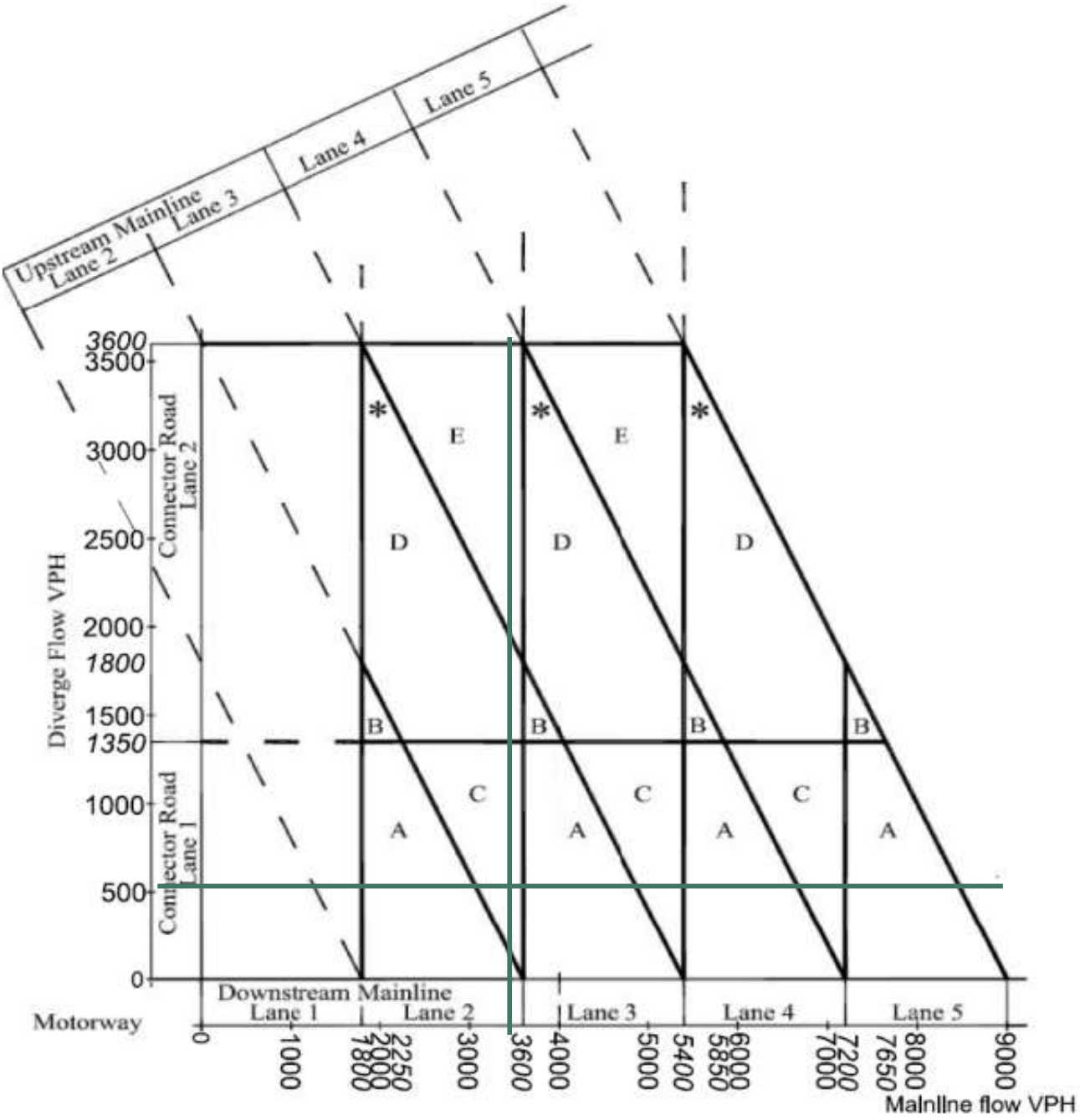
Input Flows

Upstream mainline flow:	3448	vph
Merge flow:	530	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	2
Diverge Type:	C

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Southbound | 2026 Do Minimum (AM)

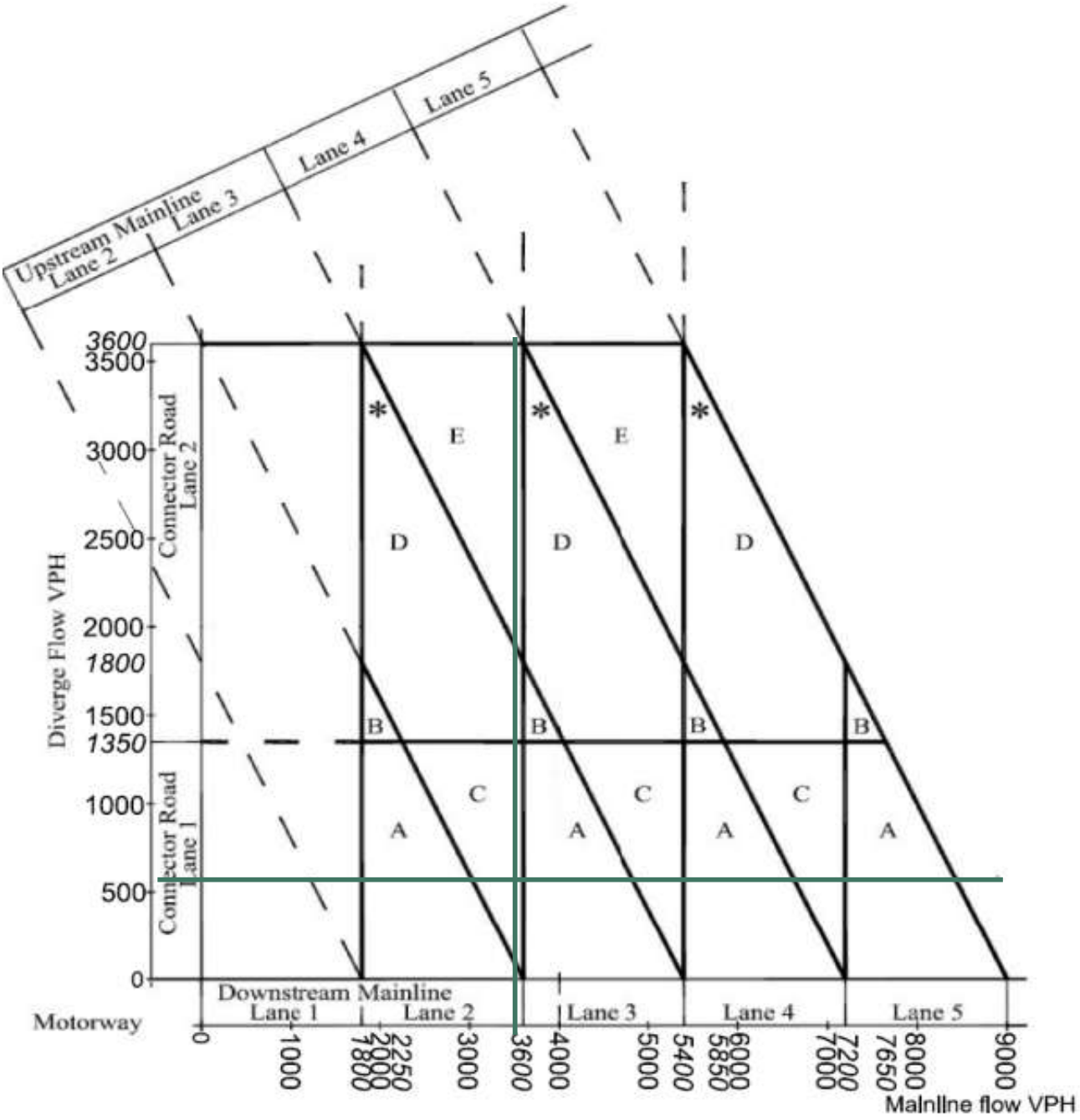
Input Flows

Upstream mainline flow:	3509	vph
Merge flow:	567	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	2
Diverge Type:	C

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Southbound | 2026 With Development (AM)

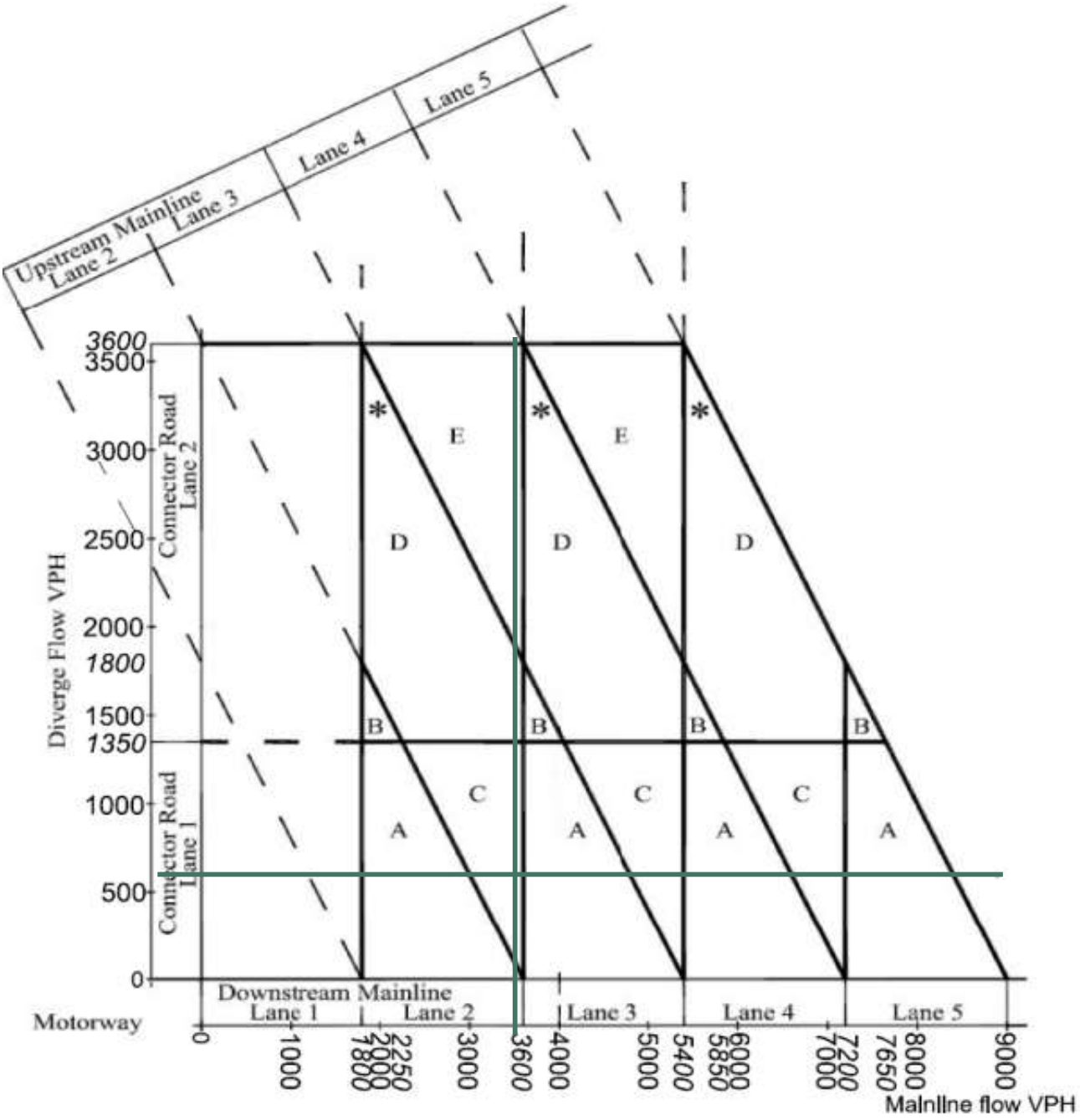
Input Flows

Upstream mainline flow:	3509	vph
Merge flow:	595	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	2
Diverge Type:	C

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Southbound | Base 2022 (PM)

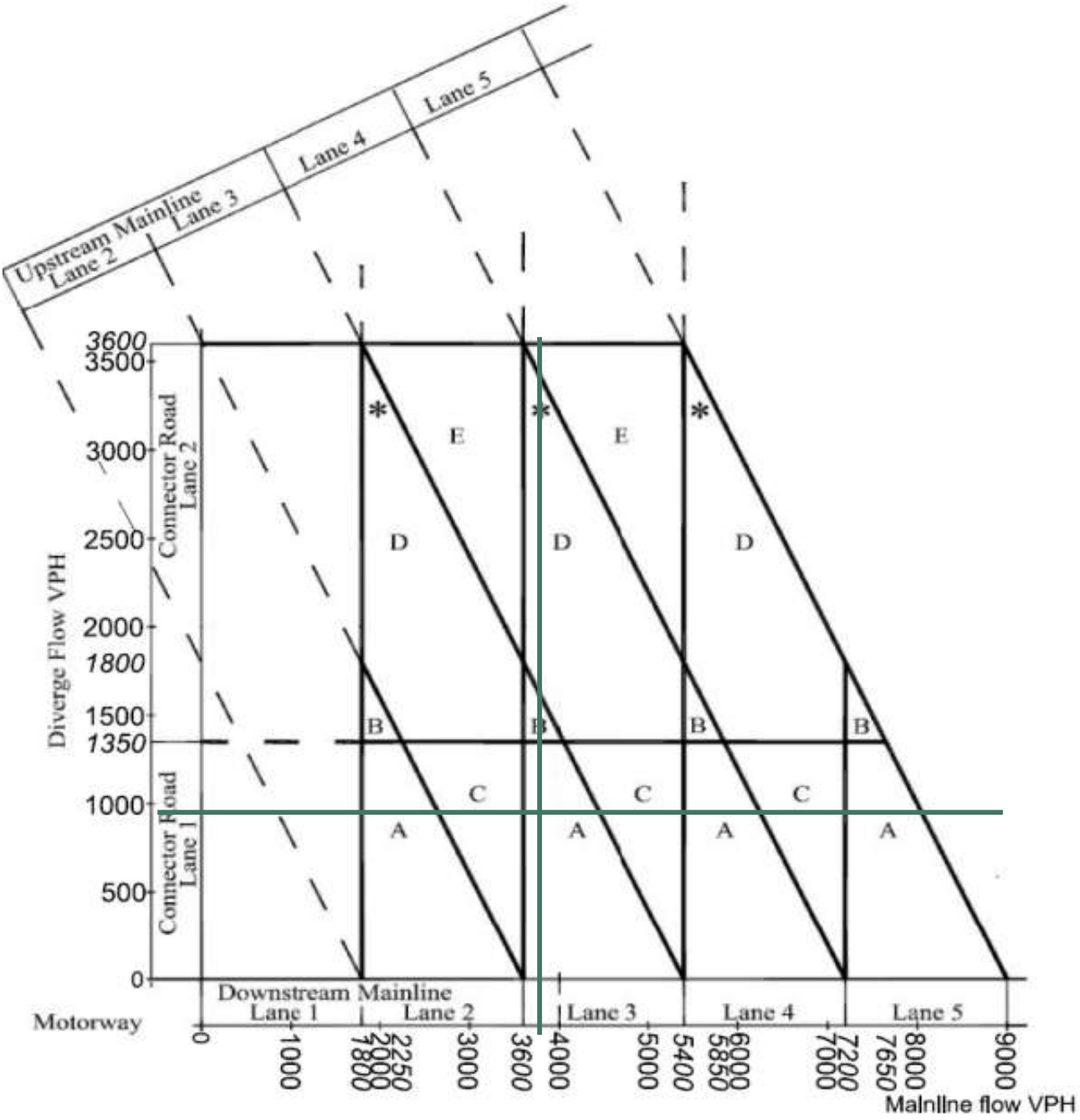
Input Flows

Upstream mainline flow:	3782	vph
Merge flow:	948	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	A

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Southbound | 2026 Do Minimum (PM)

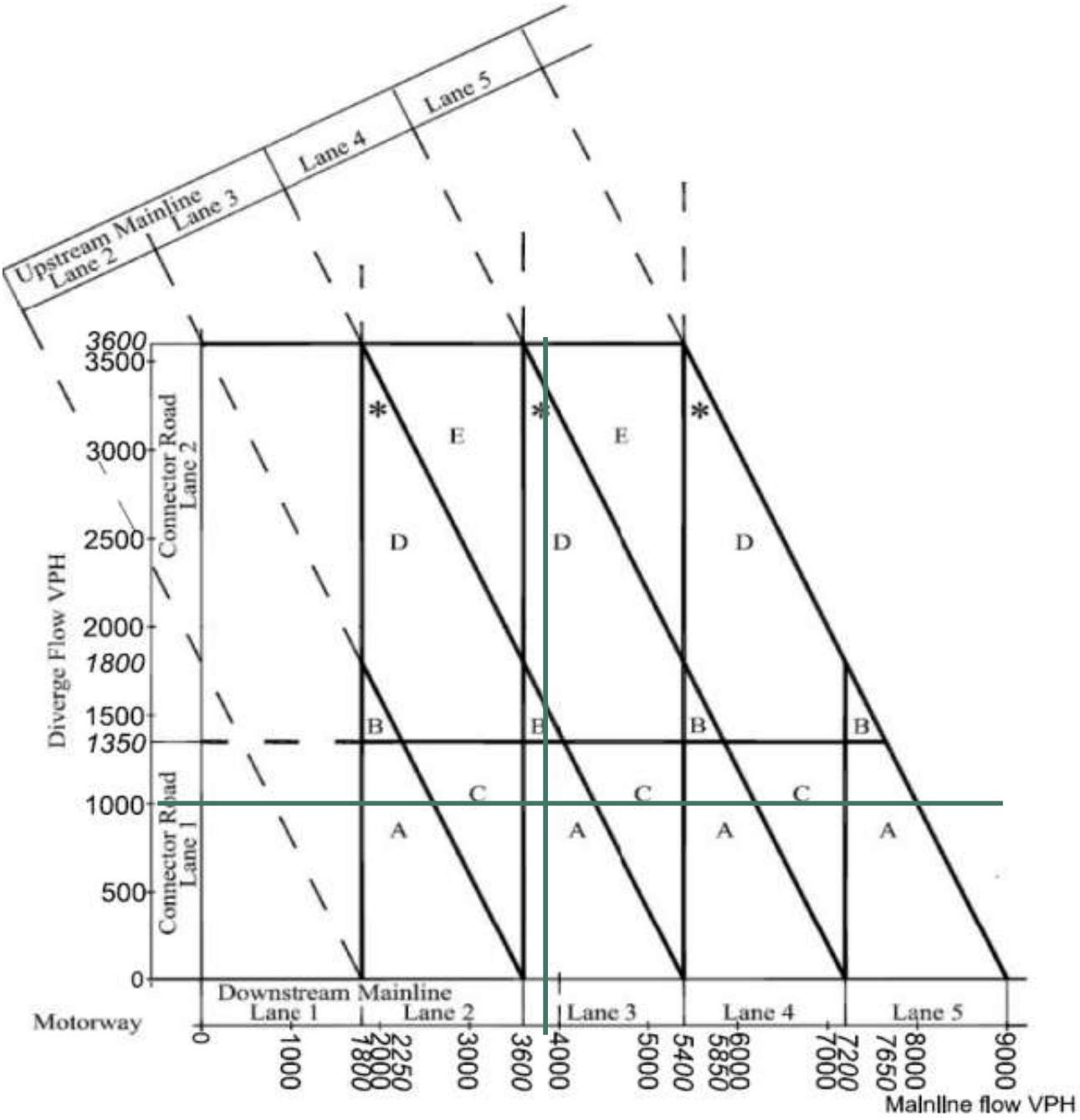
Input Flows

Upstream mainline flow:	3848	vph
Merge flow:	998	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	A

Figure 3.26b Motorway diverging diagram



Diverge Diagram

M1 Junction 37 | Southbound | 2026 With Development (PM)

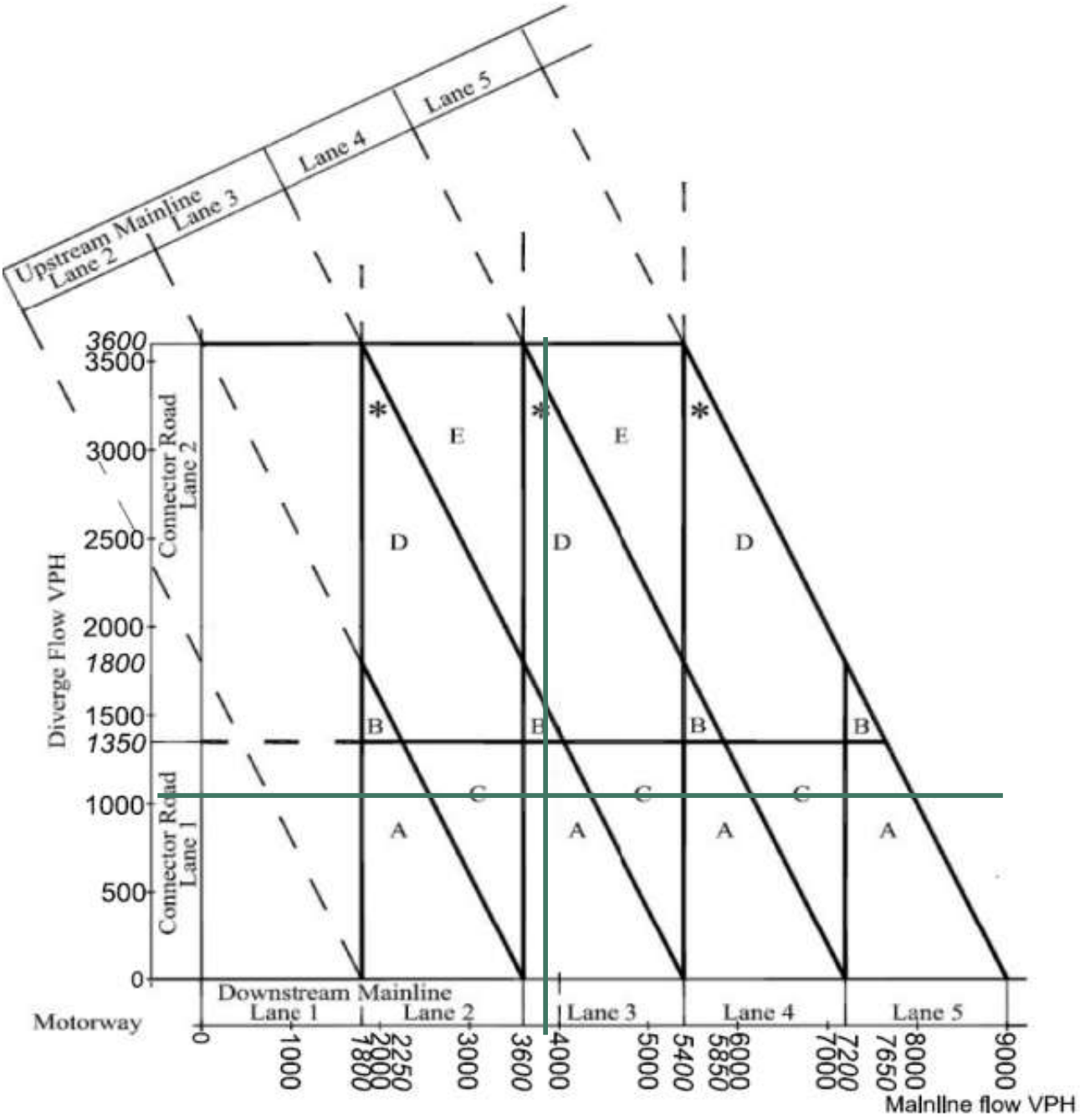
Input Flows

Upstream mainline flow:	3848	vph
Merge flow:	1043	vph

Recommended Layout

Connector Lanes:	1
Upstream mainline lanes:	3
Downstream Mainline Lanes:	3
Diverge Type:	A

Figure 3.26b Motorway diverging diagram



Appendix J-7

Junctions 10 Output – Whinby Road / B6449 Roundabout

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: 2023-10-12 J10 - Whinby Road - B6449 Rbt.j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Whinby Road - B6449 Rbt
Report generation date: 13/10/2023 16:09:06

»Existing Layout - 2022 Base, AM
»Existing Layout - 2022 Base, PM
»Existing Layout - 2026 Do Minimum, AM
»Existing Layout - 2026 Do Minimum, PM
»Existing Layout - 2026 With Development, AM
»Existing Layout - 2026 With Development, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	Existing Layout - 2022 Base					
1 - Whinby Road (North)	1.1	4.24	0.51	1.1	3.87	0.52
2 - Whinby Road (East)	1.0	3.74	0.49	3.4	8.19	0.77
3 - B6449	2.3	15.81	0.70	1.0	10.82	0.49
	Existing Layout - 2026 Do Minimum					
1 - Whinby Road (North)	1.4	4.89	0.56	1.3	4.35	0.56
2 - Whinby Road (East)	1.3	4.12	0.54	5.4	12.00	0.84
3 - B6449	6.9	40.83	0.89	1.4	13.85	0.59
	Existing Layout - 2026 With Development					
1 - Whinby Road (North)	2.3	6.69	0.69	1.8	5.14	0.63
2 - Whinby Road (East)	2.0	5.43	0.65	26.4	48.81	0.99
3 - B6449	22.7	128.31	1.03	3.0	30.35	0.76

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

File summary

File Description

Title	Whinby Rd_B6449
Location	
Site number	
Date	12/10/2023
Version	
Status	Existing Layout
Identifier	
Client	
Jobnumber	3062
Enumerator	Fore Consulting Ltd
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	07:15	08:45	15	✓
D2	2022 Base	PM	ONE HOUR	16:15	17:45	15	✓
D3	2026 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓
D4	2026 Do Minimum	PM	ONE HOUR	16:15	17:45	15	✓
D5	2026 With Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2026 With Development	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Existing Layout	✓	100.000	100.000

Existing Layout - 2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.51	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Whinby Road (North)		
2	Whinby Road (East)		
3	B6449		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Whinby Road (North)	7.00	7.00	0.0	24.2	40.1	17.8		
2 - Whinby Road (East)	7.09	7.18	1.4	21.1	39.1	39.1		
3 - B6449	3.35	4.18	5.8	17.5	40.5	23.1		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Whinby Road (North)	0.762	2229
2 - Whinby Road (East)	0.717	2108
3 - B6449	0.548	1207

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whinby Road (North)		ONE HOUR	✓	870	100.000
2 - Whinby Road (East)		ONE HOUR	✓	919	100.000
3 - B6449		ONE HOUR	✓	486	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	1	808	61
	2 - Whinby Road (East)	715	18	186
	3 - B6449	71	415	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	0	7	5
	2 - Whinby Road (East)	9	13	8
	3 - B6449	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whinby Road (North)	0.51	4.24	1.1	A	798	1197
2 - Whinby Road (East)	0.49	3.74	1.0	A	843	1265
3 - B6449	0.70	15.81	2.3	C	446	669

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	655	164	324	1982	0.331	653	590	0.0	0.5	2.889	A
2 - Whinby Road (East)	692	173	47	2075	0.333	690	930	0.0	0.5	2.829	A
3 - B6449	366	91	551	906	0.404	363	185	0.0	0.7	6.688	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	782	196	388	1933	0.405	781	707	0.5	0.7	3.339	A
2 - Whinby Road (East)	826	207	56	2068	0.399	825	1114	0.5	0.7	3.152	A
3 - B6449	437	109	659	846	0.516	435	222	0.7	1.1	8.840	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	958	239	473	1868	0.513	956	865	0.7	1.1	4.212	A
2 - Whinby Road (East)	1012	253	68	2059	0.491	1011	1361	0.7	1.0	3.731	A
3 - B6449	535	134	807	765	0.699	530	272	1.1	2.2	15.223	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	958	239	477	1865	0.514	958	866	1.1	1.1	4.238	A
2 - Whinby Road (East)	1012	253	68	2059	0.491	1012	1366	1.0	1.0	3.740	A
3 - B6449	535	134	808	765	0.700	535	272	2.2	2.3	15.813	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	782	196	393	1929	0.406	784	709	1.1	0.7	3.365	A
2 - Whinby Road (East)	826	207	56	2068	0.399	827	1121	1.0	0.7	3.163	A
3 - B6449	437	109	661	845	0.517	442	222	2.3	1.1	9.134	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	655	164	327	1979	0.331	656	593	0.7	0.5	2.910	A
2 - Whinby Road (East)	692	173	47	2075	0.333	693	936	0.7	0.5	2.838	A
3 - B6449	366	91	553	904	0.405	368	186	1.1	0.7	6.813	A

Existing Layout - 2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.95	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.95	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022 Base	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whinby Road (North)		ONE HOUR	✓	936	100.000
2 - Whinby Road (East)		ONE HOUR	✓	1395	100.000
3 - B6449		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	1	799	136
	2 - Whinby Road (East)	862	35	498
	3 - B6449	60	235	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	0	5	0
	2 - Whinby Road (East)	7	3	3
	3 - B6449	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whinby Road (North)	0.52	3.87	1.1	A	859	1288
2 - Whinby Road (East)	0.77	8.19	3.4	A	1280	1920
3 - B6449	0.49	10.82	1.0	B	273	409

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	705	176	203	2073	0.340	703	692	0.0	0.5	2.734	A
2 - Whinby Road (East)	1050	263	104	2033	0.516	1046	802	0.0	1.1	3.826	A
3 - B6449	224	56	673	839	0.267	222	477	0.0	0.4	5.940	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	841	210	244	2043	0.412	841	828	0.5	0.7	3.120	A
2 - Whinby Road (East)	1254	314	125	2019	0.621	1252	960	1.1	1.7	4.934	A
3 - B6449	267	67	806	766	0.349	266	571	0.4	0.5	7.335	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1031	258	298	2001	0.515	1029	1012	0.7	1.1	3.854	A
2 - Whinby Road (East)	1536	384	153	1999	0.768	1529	1174	1.7	3.4	7.972	A
3 - B6449	327	82	984	668	0.489	325	698	0.5	1.0	10.656	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1031	258	299	2000	0.515	1031	1016	1.1	1.1	3.869	A
2 - Whinby Road (East)	1536	384	153	1999	0.769	1536	1177	3.4	3.4	8.188	A
3 - B6449	327	82	989	666	0.491	327	700	1.0	1.0	10.825	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	841	210	246	2041	0.412	843	834	1.1	0.7	3.135	A
2 - Whinby Road (East)	1254	314	125	2019	0.621	1261	964	3.4	1.8	5.054	A
3 - B6449	267	67	812	763	0.350	269	574	1.0	0.6	7.455	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	705	176	205	2072	0.340	705	697	0.7	0.5	2.749	A
2 - Whinby Road (East)	1050	263	105	2033	0.517	1053	806	1.8	1.1	3.882	A
3 - B6449	224	56	678	836	0.267	224	480	0.6	0.4	6.008	A

Existing Layout - 2026 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	13.00	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.00	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whinby Road (North)		ONE HOUR	✓	912	100.000
2 - Whinby Road (East)		ONE HOUR	✓	1011	100.000
3 - B6449		ONE HOUR	✓	588	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	1	846	65
	2 - Whinby Road (East)	777	18	216
	3 - B6449	81	507	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	0	7	5
	2 - Whinby Road (East)	8	13	7
	3 - B6449	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whinby Road (North)	0.56	4.89	1.4	A	837	1255
2 - Whinby Road (East)	0.54	4.12	1.3	A	928	1392
3 - B6449	0.89	40.83	6.9	E	540	809

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	687	172	392	1930	0.356	684	644	0.0	0.6	3.083	A
2 - Whinby Road (East)	761	190	50	2073	0.367	759	1026	0.0	0.6	2.950	A
3 - B6449	443	111	597	880	0.503	439	211	0.0	1.0	8.184	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	820	205	469	1871	0.438	819	771	0.6	0.8	3.653	A
2 - Whinby Road (East)	909	227	59	2066	0.440	908	1229	0.6	0.8	3.353	A
3 - B6449	529	132	715	816	0.648	525	252	1.0	1.8	12.418	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1004	251	563	1799	0.558	1002	942	0.8	1.3	4.813	A
2 - Whinby Road (East)	1113	278	73	2056	0.541	1111	1493	0.8	1.3	4.102	A
3 - B6449	647	162	875	728	0.889	630	309	1.8	6.1	32.770	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1004	251	575	1790	0.561	1004	945	1.3	1.4	4.894	A
2 - Whinby Road (East)	1113	278	73	2056	0.541	1113	1507	1.3	1.3	4.117	A
3 - B6449	647	162	876	727	0.890	644	309	6.1	6.9	40.827	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	820	205	489	1856	0.442	822	776	1.4	0.9	3.726	A
2 - Whinby Road (East)	909	227	59	2066	0.440	911	1251	1.3	0.9	3.365	A
3 - B6449	529	132	717	815	0.649	548	253	6.9	1.9	14.605	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	687	172	398	1925	0.357	688	648	0.9	0.6	3.110	A
2 - Whinby Road (East)	761	190	50	2073	0.367	762	1036	0.9	0.6	2.966	A
3 - B6449	443	111	600	879	0.504	446	212	1.9	1.0	8.497	A

Existing Layout - 2026 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	9.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.54	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Do Minimum	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whinby Road (North)		ONE HOUR	✓	1004	100.000
2 - Whinby Road (East)		ONE HOUR	✓	1524	100.000
3 - B6449		ONE HOUR	✓	340	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	1	856	147
	2 - Whinby Road (East)	906	36	582
	3 - B6449	65	273	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	0	5	0
	2 - Whinby Road (East)	7	3	2
	3 - B6449	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whinby Road (North)	0.56	4.35	1.3	A	921	1382
2 - Whinby Road (East)	0.84	12.00	5.4	B	1398	2098
3 - B6449	0.59	13.85	1.4	B	312	468

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	756	189	233	2051	0.368	753	728	0.0	0.6	2.886	A
2 - Whinby Road (East)	1147	287	113	2028	0.566	1142	873	0.0	1.4	4.241	A
3 - B6449	256	64	707	820	0.312	254	548	0.0	0.5	6.463	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	903	226	279	2016	0.448	902	872	0.6	0.8	3.363	A
2 - Whinby Road (East)	1370	343	135	2012	0.681	1367	1046	1.4	2.2	5.827	A
3 - B6449	306	76	846	744	0.411	305	656	0.5	0.7	8.335	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1105	276	340	1969	0.561	1104	1062	0.8	1.3	4.324	A
2 - Whinby Road (East)	1678	419	165	1990	0.843	1666	1279	2.2	5.2	11.247	B
3 - B6449	374	94	1031	643	0.582	372	800	0.7	1.4	13.407	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1105	276	342	1968	0.562	1105	1070	1.3	1.3	4.351	A
2 - Whinby Road (East)	1678	419	165	1990	0.843	1677	1283	5.2	5.4	12.002	B
3 - B6449	374	94	1038	639	0.586	374	805	1.4	1.4	13.848	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	903	226	282	2013	0.448	904	882	1.3	0.9	3.391	A
2 - Whinby Road (East)	1370	343	135	2011	0.681	1383	1051	5.4	2.3	6.122	A
3 - B6449	306	76	855	739	0.414	308	662	1.4	0.7	8.581	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	756	189	235	2049	0.369	757	734	0.9	0.6	2.904	A
2 - Whinby Road (East)	1147	287	113	2027	0.566	1151	879	2.3	1.4	4.328	A
3 - B6449	256	64	712	817	0.313	257	552	0.7	0.5	6.566	A

Existing Layout - 2026 With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	29.40	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	29.40	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 With Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whinby Road (North)		ONE HOUR	✓	1155	100.000
2 - Whinby Road (East)		ONE HOUR	✓	1225	100.000
3 - B6449		ONE HOUR	✓	562	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	1	1098	56
	2 - Whinby Road (East)	989	18	218
	3 - B6449	101	461	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	0	7	7
	2 - Whinby Road (East)	8	13	7
	3 - B6449	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whinby Road (North)	0.69	6.69	2.3	A	1060	1590
2 - Whinby Road (East)	0.65	5.43	2.0	A	1124	1686
3 - B6449	1.03	128.31	22.7	F	516	774

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	870	217	357	1956	0.444	866	818	0.0	0.8	3.523	A
2 - Whinby Road (East)	922	231	43	2078	0.444	919	1180	0.0	0.9	3.342	A
3 - B6449	423	106	756	793	0.533	419	206	0.0	1.1	9.626	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1038	260	427	1903	0.546	1037	979	0.8	1.3	4.435	A
2 - Whinby Road (East)	1101	275	51	2072	0.532	1100	1412	0.9	1.2	3.991	A
3 - B6449	505	126	905	712	0.710	500	246	1.1	2.3	16.889	C

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1272	318	487	1858	0.685	1268	1190	1.3	2.3	6.485	A
2 - Whinby Road (East)	1349	337	63	2063	0.654	1346	1692	1.2	2.0	5.387	A
3 - B6449	619	155	1107	601	1.030	569	301	2.3	14.8	71.587	F

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1272	318	501	1846	0.689	1271	1195	2.3	2.3	6.694	A
2 - Whinby Road (East)	1349	337	63	2063	0.654	1349	1710	2.0	2.0	5.435	A
3 - B6449	619	155	1110	600	1.032	587	302	14.8	22.7	128.311	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1038	260	496	1850	0.561	1042	998	2.3	1.4	4.789	A
2 - Whinby Road (East)	1101	275	51	2071	0.532	1104	1487	2.0	1.2	4.030	A
3 - B6449	505	126	909	710	0.712	585	247	22.7	2.7	43.630	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	870	217	366	1950	0.446	872	824	1.4	0.9	3.581	A
2 - Whinby Road (East)	922	231	43	2077	0.444	924	1194	1.2	0.9	3.372	A
3 - B6449	423	106	760	791	0.535	429	207	2.7	1.2	10.253	B

Existing Layout - 2026 With Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	31.84	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	31.84	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 With Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whinby Road (North)		ONE HOUR	✓	1131	100.000
2 - Whinby Road (East)		ONE HOUR	✓	1809	100.000
3 - B6449		ONE HOUR	✓	339	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	1	1017	113
	2 - Whinby Road (East)	1168	36	605
	3 - B6449	75	262	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Whinby Road (North)	2 - Whinby Road (East)	3 - B6449
From	1 - Whinby Road (North)	0	5	1
	2 - Whinby Road (East)	6	3	2
	3 - B6449	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whinby Road (North)	0.63	5.14	1.8	A	1038	1557
2 - Whinby Road (East)	0.99	48.81	26.4	E	1660	2490
3 - B6449	0.76	30.35	3.0	D	311	467

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	851	213	224	2058	0.414	849	931	0.0	0.7	3.105	A
2 - Whinby Road (East)	1362	340	87	2046	0.666	1354	985	0.0	2.0	5.378	A
3 - B6449	255	64	902	714	0.358	253	539	0.0	0.6	7.936	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1017	254	268	2024	0.502	1015	1113	0.7	1.0	3.727	A
2 - Whinby Road (East)	1626	407	104	2034	0.800	1619	1180	2.0	4.0	8.903	A
3 - B6449	305	76	1078	617	0.494	303	645	0.6	1.0	11.640	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1245	311	324	1982	0.628	1242	1327	1.0	1.7	5.074	A
2 - Whinby Road (East)	1992	498	127	2017	0.988	1929	1439	4.0	19.8	30.708	D
3 - B6449	373	93	1285	504	0.741	367	771	1.0	2.6	25.628	D

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1245	311	329	1978	0.630	1245	1352	1.7	1.8	5.137	A
2 - Whinby Road (East)	1992	498	128	2017	0.988	1965	1446	19.8	26.4	48.808	E
3 - B6449	373	93	1309	490	0.761	372	784	2.6	3.0	30.346	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	1017	254	277	2017	0.504	1020	1177	1.8	1.1	3.785	A
2 - Whinby Road (East)	1626	407	105	2033	0.800	1714	1192	26.4	4.4	14.807	B
3 - B6449	305	76	1142	582	0.524	312	677	3.0	1.2	13.948	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whinby Road (North)	851	213	228	2055	0.414	853	943	1.1	0.7	3.134	A
2 - Whinby Road (East)	1362	340	87	2046	0.666	1371	993	4.4	2.1	5.657	A
3 - B6449	255	64	913	707	0.361	258	545	1.2	0.6	8.207	A

Appendix J-8

Junctions 10 Output – Capitol Close / Whinby Road Roundabout

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: Import of 2023-10-27 J9 - Whinby Road - Capitol Close (Jia Hsi).j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Whinby Road - Capitol Close
Report generation date: 09/11/2023 12:07:53

»2022 Base, AM
»2022 Base, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2022 Base									
Arm 1	D1	0.1	9.03	0.05	A	D2	0.2	7.36	0.18	A
Arm 2		0.8	3.09	0.42	A		0.9	3.31	0.47	A
Arm 3		3.8	14.66	0.79	B		3.9	14.10	0.79	B

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

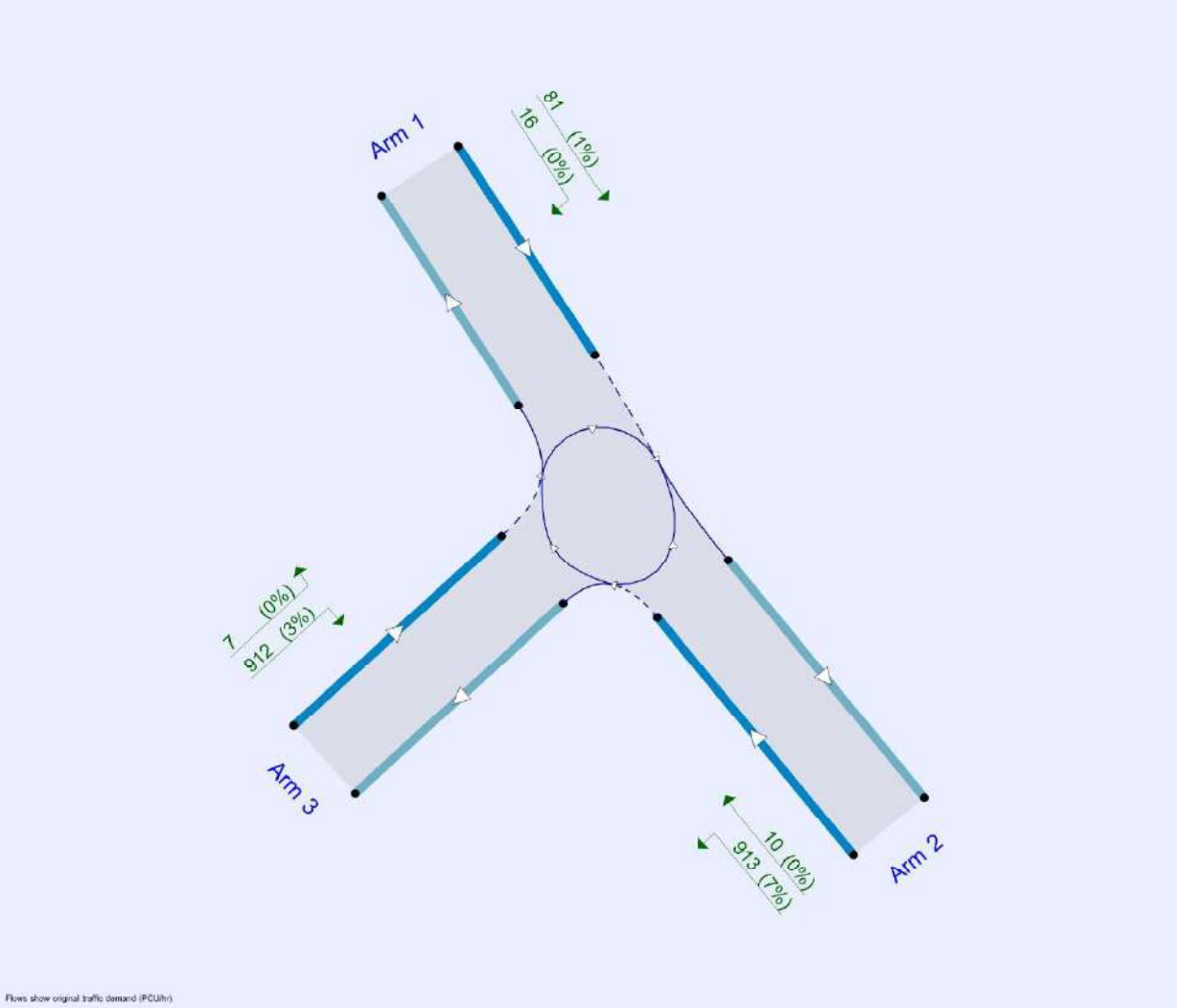
File summary

File Description

Title	Whinby Road-Capitol Close
Location	
Site number	
Date	06/11/2023
Version	
Status	(new file)
Identifier	
Client	Strata Sterling Barnsley West Ltd
Jobnumber	
Enumerator	Fore Consulting Limited
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	07:15	08:45	15	✓
D2	2022 Base	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.98	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	untitled		
3	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.30	3.90	2.0	70.0	40.0	25.0		
2	7.00	7.50	3.0	15.0	40.0	29.0		
3	3.70	4.20	3.0	20.0	40.0	16.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.548	1150
2	0.736	2191
3	0.573	1279

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	28	100.000
2		ONE HOUR	✓	838	100.000
3		ONE HOUR	✓	868	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	2	25	1
	2	105	0	733
	3	21	847	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	100	53	0
	2	8	0	9
	3	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.05	9.03	0.1	A	26	39
2	0.42	3.09	0.8	A	769	1153
3	0.79	14.66	3.8	B	796	1195

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	21	5	633	803	0.026	21	96	0.0	0.0	7.026	A
2	631	158	2	2190	0.288	629	652	0.0	0.4	2.510	A
3	653	163	80	1233	0.530	649	551	0.0	1.2	6.420	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	25	6	759	734	0.034	25	115	0.0	0.1	7.753	A
2	753	188	3	2189	0.344	753	781	0.4	0.6	2.728	A
3	780	195	96	1224	0.637	778	659	1.2	1.8	8.418	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	31	8	925	643	0.048	31	141	0.1	0.1	8.978	A
2	923	231	3	2189	0.422	922	953	0.6	0.8	3.092	A
3	956	239	118	1212	0.789	948	807	1.8	3.7	13.955	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	31	8	932	639	0.048	31	141	0.1	0.1	9.035	A
2	923	231	3	2189	0.422	923	960	0.8	0.8	3.094	A
3	956	239	118	1212	0.789	955	808	3.7	3.8	14.662	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	25	6	769	729	0.035	25	115	0.1	0.1	7.816	A
2	753	188	3	2189	0.344	754	791	0.8	0.6	2.734	A
3	780	195	96	1224	0.638	788	661	3.8	1.9	8.811	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	21	5	640	799	0.026	21	97	0.1	0.0	7.068	A
2	631	158	2	2190	0.288	631	659	0.6	0.4	2.517	A
3	653	163	81	1233	0.530	656	553	1.9	1.2	6.586	A

2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022 Base	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	97	100.000
2		ONE HOUR	✓	923	100.000
3		ONE HOUR	✓	919	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	81	16
	2	10	0	913
	3	7	912	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	1	0
	2	0	0	7
	3	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.18	7.36	0.2	A	89	134
2	0.47	3.31	0.9	A	847	1270
3	0.79	14.10	3.9	B	843	1265

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	73	18	682	776	0.094	73	13	0.0	0.1	5.155	A
2	695	174	12	2183	0.318	693	742	0.0	0.5	2.580	A
3	692	173	8	1275	0.543	687	697	0.0	1.2	6.258	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	87	22	817	702	0.124	87	15	0.1	0.1	5.901	A
2	830	207	14	2181	0.380	829	890	0.5	0.7	2.846	A
3	826	207	9	1274	0.648	824	835	1.2	1.9	8.181	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	107	27	997	604	0.177	107	19	0.1	0.2	7.295	A
2	1016	254	18	2178	0.467	1015	1086	0.7	0.9	3.306	A
3	1012	253	11	1273	0.795	1004	1022	1.9	3.7	13.432	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	107	27	1004	600	0.178	107	19	0.2	0.2	7.360	A
2	1016	254	18	2178	0.467	1016	1093	0.9	0.9	3.311	A
3	1012	253	11	1273	0.795	1011	1023	3.7	3.9	14.104	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	87	22	827	696	0.125	87	15	0.2	0.1	5.962	A
2	830	207	14	2181	0.381	831	900	0.9	0.7	2.853	A
3	826	207	9	1274	0.648	834	836	3.9	1.9	8.561	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	73	18	689	772	0.095	73	13	0.1	0.1	5.194	A
2	695	174	12	2182	0.318	696	751	0.7	0.5	2.589	A
3	692	173	8	1275	0.543	695	700	1.9	1.2	6.422	A

Junctions 10

ARCADY 10 - Roundabout Module

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Filename: 2023-10-27 J9 - Whinby Road - Capitol Close - Future Year.j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Whinby Road - Capitol Close
Report generation date: 09/11/2023 12:04:56

»2026 Do Minimum, AM
»2026 Do Minimum, PM
»2026 Phase 1 (With Link Road), AM
»2026 Phase 1 (With Link Road), PM
»2033 Do Minimum, AM
»2033 Do Minimum, PM
»2033 Full Development, AM
»2033 Full Development, PM
»2026 Residential Phase 1a, AM
»2026 Residential Phase 1a, PM
»2033 Full Residential, AM
»2033 Full Residential, PM
»2026 Employment, AM
»2026 Employment, PM
»2026 Phase 1 (Without Link Road), AM
»2026 Phase 1 (Without Link Road), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 Do Minimum										
Arm 1	D3	0.3	4.17	0.24	A	D4	1.0	5.45	0.50	A
Arm 2		0.7	2.61	0.40	A		0.8	2.71	0.43	A
Arm 3		0.5	2.46	0.33	A		0.3	1.94	0.22	A
2026 Phase 1 (With Link Road)										
Arm 1	D5	0.5	4.85	0.30	A	D6	1.1	5.86	0.52	A
Arm 2		1.0	3.02	0.48	A		1.0	3.05	0.49	A
Arm 3		0.6	2.75	0.37	A		0.3	2.12	0.24	A
2033 Do Minimum										
Arm 1	D7	0.4	4.38	0.25	A	D8	1.1	5.96	0.53	A
Arm 2		0.8	2.71	0.42	A		0.9	2.84	0.45	A
Arm 3		0.6	2.57	0.35	A		0.3	1.99	0.23	A
2033 Full Development										
Arm 1	D9	0.9	6.11	0.45	A	D10	1.7	7.51	0.62	A
Arm 2		1.2	3.27	0.52	A		1.4	3.52	0.57	A
Arm 3		0.7	2.97	0.40	A		0.4	2.35	0.27	A
2026 Residential Phase 1a										
Arm 1	D11	0.4	4.21	0.25	A	D12	1.0	5.54	0.51	A
Arm 2		0.7	2.62	0.40	A		0.8	2.75	0.44	A
Arm 3		0.5	2.47	0.33	A		0.3	1.96	0.22	A
2033 Full Residential										
Arm 1	D13	0.7	5.45	0.40	A	D14	1.2	6.21	0.55	A
Arm 2		1.0	2.95	0.47	A		1.3	3.46	0.56	A
Arm 3		0.6	2.75	0.38	A		0.4	2.29	0.27	A
2026 Employment										
Arm 1	D15	0.4	4.61	0.28	A	D16	1.4	6.50	0.57	A
Arm 2		0.9	2.84	0.45	A		0.9	2.83	0.45	A
Arm 3		0.6	2.63	0.34	A		0.3	1.99	0.22	A
2026 Phase 1 (Without Link Road)										
Arm 1	D17	0.5	4.71	0.30	A	D18	1.4	6.62	0.58	A
Arm 2		0.9	2.85	0.45	A		0.9	2.86	0.46	A
Arm 3		0.6	2.64	0.34	A		0.3	2.00	0.22	A

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

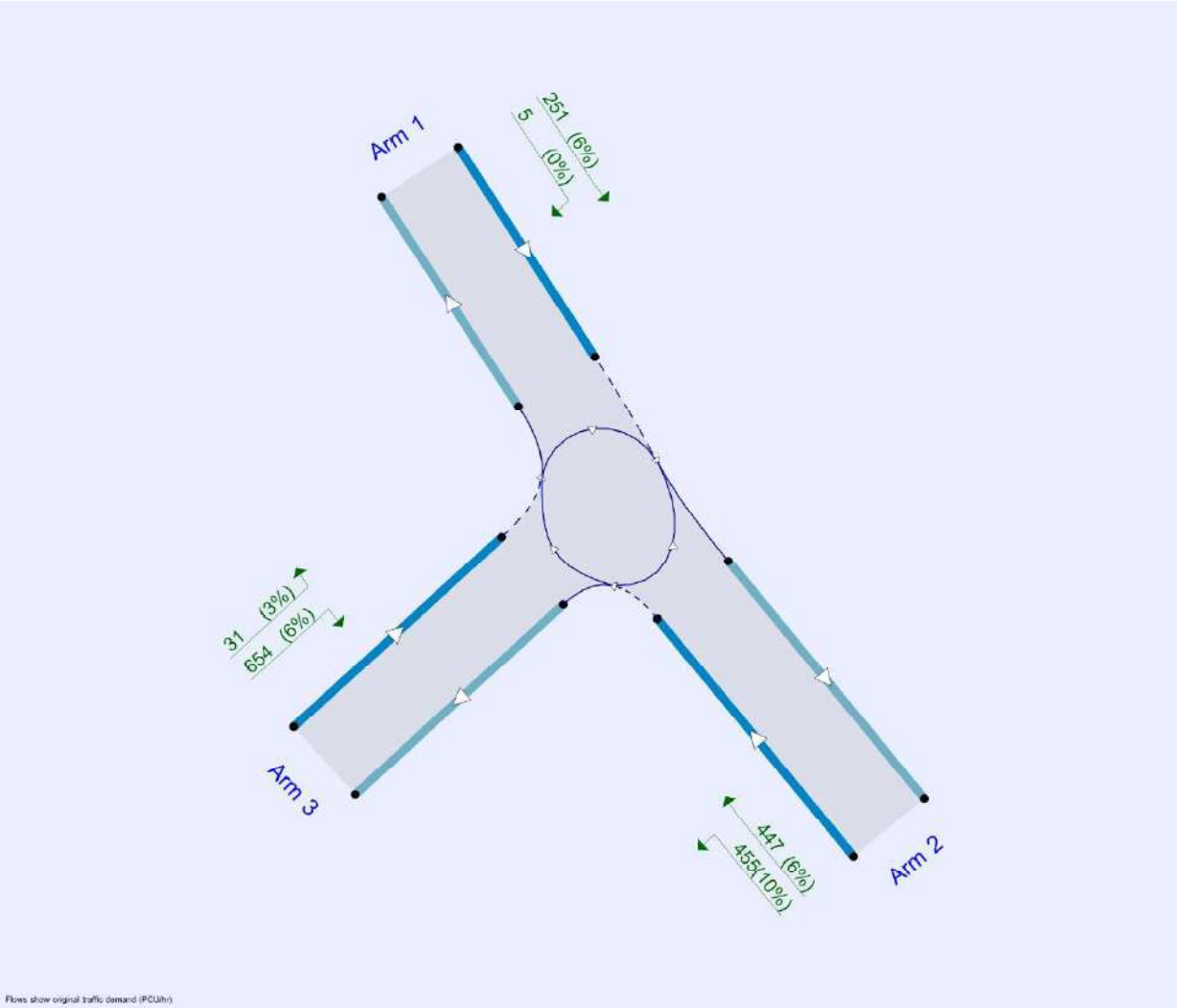
File summary

File Description

Title	Whinby Road - Capitol Close
Location	
Site number	
Date	06/11/2023
Version	
Status	(new file)
Identifier	
Client	Strata Sterling Barnsley West Ltd
Jobnumber	
Enumerator	Fore Consulting Limited
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓
D4	2026 Do Minimum	PM	ONE HOUR	16:30	18:00	15	✓
D5	2026 Phase 1 (With Link Road)	AM	ONE HOUR	07:15	08:45	15	✓
D6	2026 Phase 1 (With Link Road)	PM	ONE HOUR	16:30	18:00	15	✓
D7	2033 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓
D8	2033 Do Minimum	PM	ONE HOUR	16:30	18:00	15	✓
D9	2033 Full Development	AM	ONE HOUR	07:15	08:45	15	✓
D10	2033 Full Development	PM	ONE HOUR	16:30	18:00	15	✓
D11	2026 Residential Phase 1a	AM	ONE HOUR	07:15	08:45	15	✓
D12	2026 Residential Phase 1a	PM	ONE HOUR	16:30	18:00	15	✓
D13	2033 Full Residential	AM	ONE HOUR	07:15	08:45	15	✓
D14	2033 Full Residential	PM	ONE HOUR	16:30	18:00	15	✓
D15	2026 Employment	AM	ONE HOUR	07:15	08:45	15	✓
D16	2026 Employment	PM	ONE HOUR	16:30	18:00	15	✓
D17	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	07:15	08:45	15	✓
D18	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2026 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.77	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	untitled		
3	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.77	5.71	13.3	40.0	44.0	13.7		
2	7.54	9.36	1.7	22.8	44.0	22.2		
3	7.20	9.27	8.3	30.0	44.0	12.7		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.649	1668
2	0.796	2489
3	0.855	2724

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	258	100.000
2		ONE HOUR	✓	902	100.000
3		ONE HOUR	✓	685	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	2	251	5
	2	447	0	455
	3	31	654	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	100	6	0
	2	6	0	10
	3	3	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.24	4.17	0.3	A	237	355
2	0.40	2.61	0.7	A	828	1242
3	0.33	2.46	0.5	A	629	943

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	194	49	491	1349	0.144	194	361	0.0	0.2	3.308	A
2	679	170	5	2485	0.273	677	680	0.0	0.4	2.149	A
3	516	129	337	2435	0.212	515	345	0.0	0.3	1.983	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	232	58	588	1287	0.180	232	431	0.2	0.2	3.625	A
2	811	203	6	2484	0.326	810	813	0.4	0.5	2.323	A
3	616	154	403	2379	0.259	615	413	0.3	0.4	2.161	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	284	71	720	1201	0.236	284	528	0.2	0.3	4.167	A
2	993	248	8	2483	0.400	992	996	0.5	0.7	2.606	A
3	754	189	494	2301	0.328	754	506	0.4	0.5	2.462	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	284	71	720	1201	0.237	284	528	0.3	0.3	4.172	A
2	993	248	8	2483	0.400	993	996	0.7	0.7	2.609	A
3	754	189	494	2301	0.328	754	506	0.5	0.5	2.463	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	232	58	588	1286	0.180	232	432	0.3	0.2	3.632	A
2	811	203	6	2484	0.326	812	814	0.7	0.5	2.327	A
3	616	154	404	2378	0.259	616	414	0.5	0.4	2.165	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	194	49	493	1348	0.144	194	362	0.2	0.2	3.317	A
2	679	170	5	2485	0.273	680	682	0.5	0.4	2.153	A
3	516	129	338	2434	0.212	516	347	0.4	0.3	1.988	A

2026 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.33	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Do Minimum	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	601	100.000
2		ONE HOUR	✓	961	100.000
3		ONE HOUR	✓	487	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	576	25
	2	281	0	680
	3	12	475	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	1	0
	2	2	0	8
	3	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.50	5.45	1.0	A	551	827
2	0.43	2.71	0.8	A	882	1323
3	0.22	1.94	0.3	A	447	670

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	452	113	357	1436	0.315	451	220	0.0	0.5	3.681	A
2	723	181	19	2474	0.292	722	789	0.0	0.4	2.179	A
3	367	92	211	2543	0.144	366	529	0.0	0.2	1.717	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	540	135	427	1391	0.388	540	263	0.5	0.6	4.264	A
2	864	216	22	2471	0.350	863	944	0.4	0.6	2.377	A
3	438	109	252	2508	0.175	438	633	0.2	0.2	1.806	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	662	165	523	1329	0.498	660	322	0.6	1.0	5.425	A
2	1058	265	27	2467	0.429	1057	1156	0.6	0.8	2.710	A
3	536	134	309	2459	0.218	536	776	0.2	0.3	1.944	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	662	165	523	1329	0.498	662	323	1.0	1.0	5.448	A
2	1058	265	28	2467	0.429	1058	1157	0.8	0.8	2.712	A
3	536	134	309	2459	0.218	536	776	0.3	0.3	1.944	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	540	135	427	1391	0.388	542	264	1.0	0.6	4.286	A
2	864	216	23	2471	0.350	865	946	0.8	0.6	2.382	A
3	438	109	253	2507	0.175	438	634	0.3	0.2	1.806	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	452	113	358	1436	0.315	453	221	0.6	0.5	3.702	A
2	723	181	19	2474	0.292	724	792	0.6	0.4	2.184	A
3	367	92	212	2543	0.144	367	531	0.2	0.2	1.718	A

2026 Phase 1 (With Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.20	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Phase 1 (With Link Road)	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	321	100.000
2		ONE HOUR	✓	1088	100.000
3		ONE HOUR	✓	726	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	2	314	5
	2	585	0	503
	3	31	695	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	100	10	0
	2	7	0	9
	3	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.30	4.85	0.5	A	295	442
2	0.48	3.02	1.0	A	998	1498
3	0.37	2.75	0.6	A	666	999

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	242	60	522	1329	0.182	241	464	0.0	0.2	3.638	A
2	819	205	5	2485	0.330	817	757	0.0	0.5	2.326	A
3	547	137	441	2347	0.233	545	381	0.0	0.3	2.095	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	289	72	624	1263	0.228	288	555	0.2	0.3	4.067	A
2	978	245	6	2484	0.394	977	906	0.5	0.7	2.577	A
3	653	163	527	2273	0.287	652	456	0.3	0.4	2.330	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	353	88	764	1172	0.302	353	680	0.3	0.5	4.837	A
2	1198	299	8	2483	0.482	1197	1110	0.7	1.0	3.018	A
3	799	200	646	2172	0.368	799	559	0.4	0.6	2.749	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	353	88	765	1172	0.302	353	680	0.5	0.5	4.845	A
2	1198	299	8	2483	0.482	1198	1111	1.0	1.0	3.022	A
3	799	200	646	2171	0.368	799	559	0.6	0.6	2.752	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	289	72	626	1262	0.229	289	556	0.5	0.3	4.076	A
2	978	245	6	2484	0.394	979	908	1.0	0.7	2.583	A
3	653	163	528	2272	0.287	653	457	0.6	0.4	2.335	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	242	60	524	1328	0.182	242	466	0.3	0.2	3.652	A
2	819	205	5	2485	0.330	820	760	0.7	0.5	2.334	A
3	547	137	442	2346	0.233	547	383	0.4	0.3	2.101	A

2026 Phase 1 (With Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.62	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Phase 1 (With Link Road)	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	621	100.000
2		ONE HOUR	✓	1096	100.000
3		ONE HOUR	✓	505	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	596	25
	2	428	0	668
	3	12	493	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	0
	2	5	0	8
	3	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.52	5.86	1.1	A	570	855
2	0.49	3.05	1.0	A	1006	1509
3	0.24	2.12	0.3	A	463	695

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	468	117	370	1428	0.327	466	330	0.0	0.5	3.841	A
2	825	206	19	2474	0.334	823	817	0.0	0.5	2.326	A
3	380	95	321	2449	0.155	379	520	0.0	0.2	1.807	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	558	140	443	1381	0.404	557	395	0.5	0.7	4.496	A
2	985	246	22	2471	0.399	985	978	0.5	0.7	2.585	A
3	454	113	384	2395	0.190	454	623	0.2	0.2	1.926	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	684	171	542	1316	0.520	682	484	0.7	1.1	5.826	A
2	1207	302	27	2467	0.489	1205	1197	0.7	1.0	3.045	A
3	556	139	471	2321	0.240	556	762	0.2	0.3	2.118	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	684	171	543	1316	0.520	684	484	1.1	1.1	5.858	A
2	1207	302	28	2467	0.489	1207	1199	1.0	1.0	3.050	A
3	556	139	471	2321	0.240	556	763	0.3	0.3	2.119	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	558	140	444	1380	0.404	560	396	1.1	0.7	4.524	A
2	985	246	23	2471	0.399	987	981	1.0	0.7	2.591	A
3	454	113	385	2394	0.190	454	624	0.3	0.2	1.929	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	468	117	371	1427	0.328	468	332	0.7	0.5	3.867	A
2	825	206	19	2474	0.334	826	821	0.7	0.5	2.335	A
3	380	95	322	2448	0.155	380	522	0.2	0.2	1.811	A

2033 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.89	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.89	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2033 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	271	100.000
2		ONE HOUR	✓	953	100.000
3		ONE HOUR	✓	726	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	2	264	5
	2	470	0	483
	3	32	694	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	100	6	0
	2	6	0	10
	3	3	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.25	4.38	0.4	A	249	373
2	0.42	2.71	0.8	A	874	1312
3	0.35	2.57	0.6	A	666	999

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	204	51	521	1330	0.153	203	379	0.0	0.2	3.394	A
2	717	179	5	2485	0.289	716	719	0.0	0.4	2.196	A
3	547	137	354	2421	0.226	545	366	0.0	0.3	2.031	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	244	61	624	1263	0.193	243	453	0.2	0.3	3.749	A
2	857	214	6	2484	0.345	856	861	0.4	0.6	2.388	A
3	653	163	424	2361	0.276	652	438	0.3	0.4	2.230	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	298	75	763	1173	0.254	298	554	0.3	0.4	4.371	A
2	1049	262	8	2483	0.423	1048	1054	0.6	0.8	2.709	A
3	799	200	519	2280	0.351	799	537	0.4	0.6	2.571	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	298	75	764	1172	0.255	298	555	0.4	0.4	4.376	A
2	1049	262	8	2483	0.423	1049	1055	0.8	0.8	2.711	A
3	799	200	520	2279	0.351	799	537	0.6	0.6	2.574	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	244	61	625	1263	0.193	244	454	0.4	0.3	3.757	A
2	857	214	6	2484	0.345	858	862	0.8	0.6	2.391	A
3	653	163	425	2361	0.276	653	439	0.6	0.4	2.232	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	204	51	523	1329	0.154	204	380	0.3	0.2	3.401	A
2	717	179	5	2485	0.289	718	722	0.6	0.4	2.200	A
3	547	137	356	2420	0.226	547	368	0.4	0.3	2.036	A

2033 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.55	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2033 Do Minimum	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	634	100.000
2		ONE HOUR	✓	1018	100.000
3		ONE HOUR	✓	516	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	608	26
	2	297	0	721
	3	12	504	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	1	0
	2	2	0	8
	3	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.53	5.96	1.1	A	582	873
2	0.45	2.84	0.9	A	934	1401
3	0.23	1.99	0.3	A	473	710

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	119	379	1422	0.336	475	232	0.0	0.5	3.830	A
2	766	192	19	2473	0.310	765	834	0.0	0.5	2.235	A
3	388	97	223	2533	0.153	388	561	0.0	0.2	1.743	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	570	142	453	1374	0.415	569	278	0.5	0.7	4.509	A
2	915	229	23	2470	0.370	915	999	0.5	0.6	2.457	A
3	464	116	267	2496	0.186	464	671	0.2	0.2	1.840	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	698	175	555	1308	0.534	696	340	0.7	1.1	5.923	A
2	1121	280	29	2466	0.454	1120	1222	0.6	0.9	2.838	A
3	568	142	327	2444	0.232	568	822	0.2	0.3	1.993	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	698	175	555	1308	0.534	698	340	1.1	1.1	5.957	A
2	1121	280	29	2466	0.455	1121	1224	0.9	0.9	2.840	A
3	568	142	327	2444	0.232	568	822	0.3	0.3	1.993	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	570	142	453	1374	0.415	572	278	1.1	0.7	4.539	A
2	915	229	23	2470	0.370	916	1002	0.9	0.6	2.462	A
3	464	116	267	2495	0.186	464	672	0.3	0.2	1.843	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	119	380	1422	0.336	478	233	0.7	0.5	3.854	A
2	766	192	20	2473	0.310	767	838	0.6	0.5	2.242	A
3	388	97	224	2532	0.153	389	563	0.2	0.2	1.746	A

2033 Full Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.72	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2033 Full Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	464	100.000
2		ONE HOUR	✓	1177	100.000
3		ONE HOUR	✓	768	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	2	457	5
	2	643	0	534
	3	32	736	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	100	7	0
	2	7	0	9
	3	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.45	6.11	0.9	A	426	639
2	0.52	3.27	1.2	A	1080	1620
3	0.40	2.97	0.7	A	705	1057

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	349	87	553	1309	0.267	348	508	0.0	0.4	4.004	A
2	886	222	5	2485	0.357	884	895	0.0	0.6	2.423	A
3	578	145	484	2310	0.250	577	405	0.0	0.3	2.177	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	417	104	661	1239	0.337	417	608	0.4	0.5	4.686	A
2	1058	265	6	2484	0.426	1057	1071	0.6	0.8	2.721	A
3	690	173	579	2228	0.310	690	484	0.3	0.5	2.455	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	511	128	809	1143	0.447	510	745	0.5	0.9	6.078	A
2	1296	324	8	2483	0.522	1294	1311	0.8	1.2	3.264	A
3	846	211	709	2117	0.399	845	593	0.5	0.7	2.966	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	511	128	810	1142	0.447	511	745	0.9	0.9	6.107	A
2	1296	324	8	2483	0.522	1296	1313	1.2	1.2	3.272	A
3	846	211	710	2117	0.399	846	593	0.7	0.7	2.970	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	417	104	663	1238	0.337	418	609	0.9	0.5	4.713	A
2	1058	265	6	2484	0.426	1060	1075	1.2	0.8	2.729	A
3	690	173	581	2227	0.310	691	485	0.7	0.5	2.461	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	349	87	555	1308	0.267	350	510	0.5	0.4	4.027	A
2	886	222	5	2485	0.357	887	899	0.8	0.6	2.433	A
3	578	145	486	2308	0.251	579	406	0.5	0.4	2.185	A

2033 Full Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.42	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2033 Full Development	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	731	100.000
2		ONE HOUR	✓	1286	100.000
3		ONE HOUR	✓	537	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	705	26
	2	575	0	711
	3	12	525	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	0
	2	1	0	4
	3	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.62	7.51	1.7	A	671	1006
2	0.57	3.52	1.4	A	1180	1770
3	0.27	2.35	0.4	A	493	739

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	550	138	394	1412	0.390	548	441	0.0	0.6	4.232	A
2	968	242	19	2473	0.391	966	923	0.0	0.7	2.446	A
3	404	101	432	2355	0.172	403	553	0.0	0.2	1.916	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	657	164	472	1362	0.482	656	527	0.6	0.9	5.189	A
2	1156	289	23	2470	0.468	1155	1104	0.7	0.9	2.808	A
3	483	121	516	2282	0.212	482	662	0.2	0.3	2.078	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	805	201	578	1293	0.622	802	645	0.9	1.6	7.426	A
2	1416	354	29	2466	0.574	1414	1351	0.9	1.4	3.506	A
3	591	148	632	2183	0.271	591	810	0.3	0.4	2.349	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	805	201	578	1293	0.622	805	646	1.6	1.7	7.512	A
2	1416	354	29	2466	0.574	1416	1354	1.4	1.4	3.517	A
3	591	148	633	2183	0.271	591	811	0.4	0.4	2.350	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	657	164	472	1362	0.483	660	529	1.7	1.0	5.250	A
2	1156	289	23	2470	0.468	1158	1109	1.4	0.9	2.819	A
3	483	121	518	2281	0.212	483	664	0.4	0.3	2.080	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	550	138	395	1411	0.390	552	442	1.0	0.7	4.272	A
2	968	242	20	2473	0.391	969	927	0.9	0.7	2.457	A
3	404	101	433	2353	0.172	405	555	0.3	0.2	1.921	A

2026 Residential Phase 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.80	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2026 Residential Phase 1a	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	274	100.000
2		ONE HOUR	✓	906	100.000
3		ONE HOUR	✓	685	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	2	267	5
	2	451	0	455
	3	31	654	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	100	5	0
	2	6	0	10
	3	3	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.25	4.21	0.4	A	251	377
2	0.40	2.62	0.7	A	831	1247
3	0.33	2.47	0.5	A	629	943

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	206	52	491	1349	0.153	206	364	0.0	0.2	3.312	A
2	682	171	5	2485	0.275	680	692	0.0	0.4	2.152	A
3	516	129	340	2433	0.212	515	345	0.0	0.3	1.986	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	246	62	588	1287	0.191	246	435	0.2	0.2	3.641	A
2	814	204	6	2484	0.328	814	827	0.4	0.5	2.327	A
3	616	154	407	2376	0.259	615	413	0.3	0.4	2.165	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	302	75	720	1201	0.251	301	532	0.2	0.4	4.209	A
2	998	249	8	2483	0.402	997	1013	0.5	0.7	2.614	A
3	754	189	498	2298	0.328	754	506	0.4	0.5	2.468	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	302	75	720	1201	0.251	302	533	0.4	0.4	4.214	A
2	998	249	8	2483	0.402	998	1014	0.7	0.7	2.616	A
3	754	189	499	2297	0.328	754	506	0.5	0.5	2.469	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	246	62	588	1286	0.192	247	436	0.4	0.3	3.649	A
2	814	204	6	2484	0.328	815	829	0.7	0.5	2.331	A
3	616	154	408	2375	0.259	616	414	0.5	0.4	2.168	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	206	52	493	1348	0.153	207	365	0.3	0.2	3.318	A
2	682	171	5	2485	0.275	683	694	0.5	0.4	2.157	A
3	516	129	341	2432	0.212	516	347	0.4	0.3	1.990	A

2026 Residential Phase 1a, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.38	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2026 Residential Phase 1a	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	611	100.000
2		ONE HOUR	✓	978	100.000
3		ONE HOUR	✓	487	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	586	25
	2	298	0	680
	3	12	475	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	1	0
	2	2	0	8
	3	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.51	5.54	1.0	A	561	841
2	0.44	2.75	0.8	A	897	1346
3	0.22	1.96	0.3	A	447	670

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	460	115	357	1436	0.320	458	233	0.0	0.5	3.709	A
2	736	184	19	2474	0.298	734	796	0.0	0.4	2.194	A
3	367	92	224	2532	0.145	366	529	0.0	0.2	1.726	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	549	137	427	1391	0.395	549	279	0.5	0.7	4.310	A
2	879	220	22	2471	0.356	879	953	0.4	0.6	2.399	A
3	438	109	268	2495	0.175	438	633	0.2	0.2	1.817	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	673	168	523	1329	0.506	671	341	0.7	1.0	5.514	A
2	1077	269	27	2467	0.436	1076	1166	0.6	0.8	2.744	A
3	536	134	328	2443	0.219	536	776	0.2	0.3	1.960	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	673	168	523	1329	0.506	673	341	1.0	1.0	5.539	A
2	1077	269	28	2467	0.436	1077	1168	0.8	0.8	2.746	A
3	536	134	328	2443	0.219	536	776	0.3	0.3	1.961	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	549	137	427	1391	0.395	551	279	1.0	0.7	4.335	A
2	879	220	23	2471	0.356	880	955	0.8	0.6	2.403	A
3	438	109	268	2494	0.176	438	634	0.3	0.2	1.818	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	460	115	358	1436	0.320	461	234	0.7	0.5	3.728	A
2	736	184	19	2474	0.298	737	800	0.6	0.5	2.200	A
3	367	92	225	2532	0.145	367	531	0.2	0.2	1.729	A

2033 Full Residential, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.34	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.34	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Full Residential	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	412	100.000
2		ONE HOUR	✓	1070	100.000
3		ONE HOUR	✓	768	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	2	405	5
	2	536	0	534
	3	32	736	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	100	4	0
	2	5	0	9
	3	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.40	5.45	0.7	A	378	567
2	0.47	2.95	1.0	A	982	1473
3	0.38	2.75	0.6	A	705	1057

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	310	78	553	1309	0.237	309	428	0.0	0.3	3.744	A
2	806	201	5	2485	0.324	804	856	0.0	0.5	2.287	A
3	578	145	404	2378	0.243	577	405	0.0	0.3	2.096	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	370	93	661	1239	0.299	370	512	0.3	0.4	4.314	A
2	962	240	6	2484	0.387	961	1025	0.5	0.7	2.527	A
3	690	173	483	2311	0.299	690	484	0.3	0.4	2.330	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	454	113	810	1143	0.397	453	627	0.4	0.7	5.427	A
2	1178	295	8	2483	0.475	1177	1255	0.7	1.0	2.946	A
3	846	211	592	2218	0.381	845	593	0.4	0.6	2.749	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	454	113	810	1142	0.397	454	628	0.7	0.7	5.446	A
2	1178	295	8	2483	0.475	1178	1256	1.0	1.0	2.950	A
3	846	211	592	2217	0.381	846	593	0.6	0.6	2.752	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	370	93	662	1238	0.299	371	513	0.7	0.4	4.330	A
2	962	240	6	2484	0.387	963	1027	1.0	0.7	2.535	A
3	690	173	484	2310	0.299	691	485	0.6	0.4	2.336	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	310	78	555	1308	0.237	311	429	0.4	0.3	3.760	A
2	806	201	5	2485	0.324	806	860	0.7	0.5	2.294	A
3	578	145	405	2377	0.243	579	406	0.4	0.3	2.100	A

2033 Full Residential, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.93	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Full Residential	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	643	100.000
2		ONE HOUR	✓	1244	100.000
3		ONE HOUR	✓	537	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	617	26
	2	533	0	711
	3	12	525	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	1	0
	2	2	0	8
	3	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.55	6.21	1.2	A	590	885
2	0.56	3.46	1.3	A	1142	1712
3	0.27	2.29	0.4	A	493	739

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	484	121	394	1412	0.343	482	409	0.0	0.5	3.899	A
2	937	234	19	2473	0.379	934	857	0.0	0.6	2.459	A
3	404	101	400	2382	0.170	403	553	0.0	0.2	1.890	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	578	145	472	1362	0.424	577	490	0.5	0.7	4.626	A
2	1118	280	23	2470	0.453	1117	1026	0.6	0.9	2.802	A
3	483	121	479	2314	0.209	483	662	0.2	0.3	2.041	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	708	177	578	1293	0.547	706	599	0.7	1.2	6.170	A
2	1370	342	29	2466	0.555	1368	1255	0.9	1.3	3.446	A
3	591	148	586	2223	0.266	591	810	0.3	0.4	2.292	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	708	177	578	1293	0.548	708	600	1.2	1.2	6.211	A
2	1370	342	29	2466	0.555	1370	1257	1.3	1.3	3.457	A
3	591	148	587	2222	0.266	591	811	0.4	0.4	2.293	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	578	145	472	1362	0.425	580	491	1.2	0.8	4.661	A
2	1118	280	23	2470	0.453	1120	1029	1.3	0.9	2.811	A
3	483	121	480	2313	0.209	483	664	0.4	0.3	2.045	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	484	121	395	1411	0.343	485	411	0.8	0.5	3.926	A
2	937	234	20	2473	0.379	937	861	0.9	0.6	2.472	A
3	404	101	402	2380	0.170	405	555	0.3	0.2	1.892	A

2026 Employment, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.04	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2026 Employment	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	310	100.000
2		ONE HOUR	✓	1009	100.000
3		ONE HOUR	✓	685	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	2	303	5
	2	554	0	455
	3	31	654	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	100	10	0
	2	7	0	10
	3	3	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.28	4.61	0.4	A	284	427
2	0.45	2.84	0.9	A	926	1389
3	0.34	2.63	0.6	A	629	943

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	233	58	491	1349	0.173	232	441	0.0	0.2	3.546	A
2	760	190	5	2485	0.306	758	718	0.0	0.5	2.256	A
3	516	129	418	2367	0.218	515	345	0.0	0.3	2.056	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	279	70	588	1287	0.217	278	527	0.2	0.3	3.931	A
2	907	227	6	2484	0.365	906	860	0.5	0.6	2.472	A
3	616	154	500	2297	0.268	615	413	0.3	0.4	2.266	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	85	719	1201	0.284	341	646	0.3	0.4	4.605	A
2	1111	278	8	2483	0.447	1110	1053	0.6	0.9	2.840	A
3	754	189	612	2201	0.343	754	506	0.4	0.5	2.631	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	85	720	1201	0.284	341	646	0.4	0.4	4.612	A
2	1111	278	8	2483	0.447	1111	1054	0.9	0.9	2.842	A
3	754	189	612	2200	0.343	754	506	0.5	0.6	2.634	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	279	70	589	1286	0.217	279	528	0.4	0.3	3.940	A
2	907	227	6	2484	0.365	908	861	0.9	0.6	2.476	A
3	616	154	500	2296	0.268	616	414	0.6	0.4	2.269	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	233	58	493	1348	0.173	234	442	0.3	0.2	3.557	A
2	760	190	5	2485	0.306	760	721	0.6	0.5	2.263	A
3	516	129	419	2366	0.218	516	347	0.4	0.3	2.062	A

2026 Employment, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.80	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2026 Employment	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	689	100.000
2		ONE HOUR	✓	1003	100.000
3		ONE HOUR	✓	487	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	664	25
	2	323	0	680
	3	12	475	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	0
	2	5	0	8
	3	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.57	6.50	1.4	A	632	948
2	0.45	2.83	0.9	A	920	1381
3	0.22	1.99	0.3	A	447	670

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	519	130	357	1436	0.361	516	252	0.0	0.6	4.016	A
2	755	189	19	2474	0.305	753	855	0.0	0.5	2.237	A
3	367	92	243	2516	0.146	366	529	0.0	0.2	1.739	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	619	155	427	1391	0.445	618	301	0.6	0.8	4.787	A
2	902	225	22	2471	0.365	901	1023	0.5	0.6	2.454	A
3	438	109	290	2476	0.177	438	633	0.2	0.2	1.834	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	759	190	523	1329	0.571	756	369	0.8	1.3	6.448	A
2	1104	276	27	2467	0.448	1103	1252	0.6	0.9	2.824	A
3	536	134	355	2420	0.222	536	775	0.2	0.3	1.985	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	759	190	523	1329	0.571	759	369	1.3	1.4	6.495	A
2	1104	276	28	2467	0.448	1104	1254	0.9	0.9	2.826	A
3	536	134	356	2420	0.222	536	776	0.3	0.3	1.985	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	619	155	427	1391	0.445	621	301	1.4	0.8	4.827	A
2	902	225	23	2471	0.365	903	1026	0.9	0.6	2.459	A
3	438	109	291	2475	0.177	438	635	0.3	0.2	1.838	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	519	130	358	1436	0.361	520	252	0.8	0.6	4.048	A
2	755	189	19	2474	0.305	756	859	0.6	0.5	2.242	A
3	367	92	243	2516	0.146	367	531	0.2	0.2	1.742	A

2026 Phase 1 (Without Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.08	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.08	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	326	100.000
2		ONE HOUR	✓	1014	100.000
3		ONE HOUR	✓	685	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	2	319	5
	2	559	0	455
	3	31	654	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	100	10	0
	2	7	0	10
	3	3	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.30	4.71	0.5	A	299	449
2	0.45	2.85	0.9	A	930	1396
3	0.34	2.64	0.6	A	629	943

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	245	61	491	1349	0.182	244	445	0.0	0.2	3.585	A
2	763	191	5	2485	0.307	761	730	0.0	0.5	2.261	A
3	516	129	421	2364	0.218	515	345	0.0	0.3	2.060	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	293	73	588	1287	0.228	293	532	0.2	0.3	3.987	A
2	912	228	6	2484	0.367	911	874	0.5	0.6	2.479	A
3	616	154	504	2293	0.269	615	413	0.3	0.4	2.272	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	359	90	719	1201	0.299	358	651	0.3	0.5	4.701	A
2	1116	279	8	2483	0.450	1115	1070	0.6	0.9	2.851	A
3	754	189	617	2196	0.343	754	506	0.4	0.6	2.640	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	359	90	720	1201	0.299	359	652	0.5	0.5	4.708	A
2	1116	279	8	2483	0.450	1116	1071	0.9	0.9	2.853	A
3	754	189	618	2196	0.343	754	506	0.6	0.6	2.643	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	293	73	589	1286	0.228	294	533	0.5	0.3	3.996	A
2	912	228	6	2484	0.367	913	876	0.9	0.6	2.484	A
3	616	154	505	2292	0.269	616	414	0.6	0.4	2.274	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	245	61	493	1348	0.182	246	446	0.3	0.2	3.598	A
2	763	191	5	2485	0.307	764	733	0.6	0.5	2.266	A
3	516	129	423	2362	0.218	516	347	0.4	0.3	2.064	A

2026 Phase 1 (Without Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.87	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	699	100.000
2		ONE HOUR	✓	1020	100.000
3		ONE HOUR	✓	487	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	674	25
	2	340	0	680
	3	12	475	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	0
	2	5	0	8
	3	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.58	6.62	1.4	A	641	962
2	0.46	2.86	0.9	A	936	1404
3	0.22	2.00	0.3	A	447	670

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	526	132	357	1436	0.366	524	264	0.0	0.6	4.048	A
2	768	192	19	2474	0.310	766	862	0.0	0.5	2.253	A
3	367	92	255	2505	0.146	366	529	0.0	0.2	1.747	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	628	157	427	1391	0.452	627	316	0.6	0.8	4.844	A
2	917	229	22	2471	0.371	916	1032	0.5	0.6	2.477	A
3	438	109	305	2463	0.178	438	633	0.2	0.2	1.846	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	770	192	523	1329	0.579	767	387	0.8	1.4	6.570	A
2	1123	281	27	2467	0.455	1122	1263	0.6	0.9	2.863	A
3	536	134	374	2404	0.223	536	775	0.2	0.3	2.002	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	770	192	523	1329	0.579	770	388	1.4	1.4	6.623	A
2	1123	281	28	2467	0.455	1123	1265	0.9	0.9	2.865	A
3	536	134	374	2404	0.223	536	776	0.3	0.3	2.002	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	628	157	427	1391	0.452	631	317	1.4	0.9	4.887	A
2	917	229	23	2471	0.371	918	1035	0.9	0.6	2.481	A
3	438	109	306	2462	0.178	438	635	0.3	0.2	1.847	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	526	132	358	1436	0.366	527	265	0.9	0.6	4.082	A
2	768	192	19	2474	0.310	769	866	0.6	0.5	2.258	A
3	367	92	256	2505	0.146	367	531	0.2	0.2	1.748	A

Appendix J-9

Junctions 10 Output – Whinby Road / Higham Lane Roundabout

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: 2023-10-27 J9 - Whinby Road - Higham Lane.j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Whinby Road - Higham Lane
Report generation date: 09/11/2023 12:01:44

»2022 Base, AM
»2022 Base, PM
»2026 Do Minimum, AM
»2026 Do Minimum, PM
»2026 Phase 1 (With Link Road), AM
»2026 Phase 1 (With Link Road), PM
»2033 Do Minimum, AM
»2033 Do Minimum, PM
»2033 Full Development, AM
»2033 Full Development, PM
»2026 Residential Phase 1a, AM
»2026 Residential Phase 1a, PM
»2033 Full Residential , AM
»2033 Full Residential , PM
»2026 Employment, AM
»2026 Employment, PM
»2026 Phase 1 (Without Link Road), AM
»2026 P1 (Without Link Road), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2022 Base										
Arm 1	D1	0.9	9.17	0.46	A	D2	2.6	15.20	0.73	C
Arm 2		2.6	11.21	0.71	B		6.5	24.19	0.87	C
Arm 3		6.3	27.34	0.87	D		1.7	9.49	0.62	A
2026 Do Minimum										
Arm 1	D3	0.2	6.10	0.18	A	D4	0.2	5.13	0.18	A
Arm 2		0.9	6.11	0.45	A		1.1	6.67	0.49	A
Arm 3		3.1	12.78	0.75	B		1.3	6.96	0.55	A
2026 Phase 1 (With Link Road)										
Arm 1	D5	0.1	6.07	0.10	A	D6	0.3	5.60	0.23	A
Arm 2		1.0	6.20	0.48	A		1.1	6.80	0.49	A
Arm 3		3.5	13.91	0.77	B		1.4	7.40	0.58	A
2033 Do Minimum										
Arm 1	D7	0.3	6.46	0.20	A	D8	0.2	5.33	0.20	A
Arm 2		1.0	6.48	0.48	A		1.2	7.16	0.53	A
Arm 3		4.0	15.52	0.80	C		1.4	7.52	0.59	A
2033 Full Development										
Arm 1	D9	0.2	6.58	0.16	A	D10	0.4	6.00	0.28	A
Arm 2		1.2	6.85	0.52	A		1.2	7.51	0.53	A
Arm 3		4.7	18.02	0.83	C		1.8	8.77	0.65	A
2026 Residential Phase 1a										
Arm 1	D11	0.2	6.10	0.19	A	D12	0.2	5.15	0.19	A
Arm 2		0.9	6.14	0.46	A		1.1	6.69	0.49	A
Arm 3		3.1	12.81	0.75	B		1.3	7.05	0.56	A
2033 Full Residential										
Arm 1	D13	0.2	6.35	0.15	A	D14	0.3	5.85	0.26	A
Arm 2		1.2	6.78	0.52	A		1.2	7.38	0.53	A
Arm 3		4.3	16.48	0.81	C		1.8	8.60	0.64	A
2026 Employment										
Arm 1	D15	0.3	6.25	0.20	A	D16	0.3	5.30	0.20	A
Arm 2		0.9	6.16	0.46	A		1.1	6.78	0.50	A
Arm 3		3.4	13.71	0.77	B		1.3	7.08	0.56	A
2026 Phase 1 (Without Link Road)										
Arm 1	D17	0.3	6.32	0.20	A					
Arm 2		0.9	6.20	0.46	A					
Arm 3		3.4	13.71	0.77	B					
2026 P1 (Without Link Road)										
Arm 1						D18	0.3	5.32	0.20	A
Arm 2							1.1	6.80	0.50	A
Arm 3							1.3	7.17	0.56	A

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

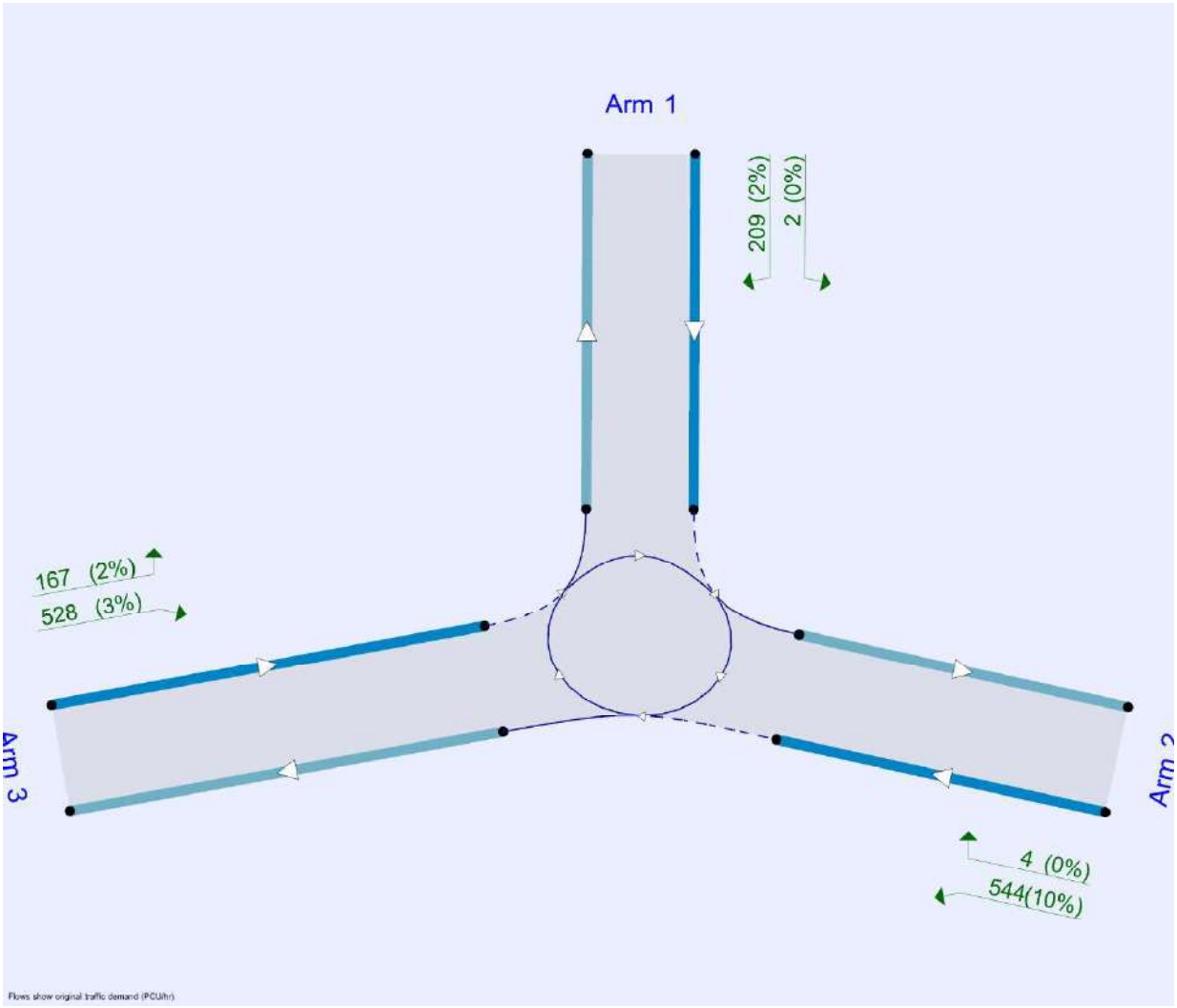
File summary

File Description

Title	Whinby Road - Higham Lane
Location	
Site number	
Date	06/11/2023
Version	
Status	(new file)
Identifier	
Client	Strata Sterling Barnsley West Ltd
Jobnumber	
Enumerator	Fore Consulting Limited
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	07:15	08:45	15	✓
D2	2022 Base	PM	ONE HOUR	16:30	18:00	15	✓
D3	2026 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓
D4	2026 Do Minimum	PM	ONE HOUR	16:30	18:00	15	✓
D5	2026 Phase 1 (With Link Road)	AM	ONE HOUR	07:15	08:45	15	✓
D6	2026 Phase 1 (With Link Road)	PM	ONE HOUR	16:30	18:00	15	✓
D7	2033 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓
D8	2033 Do Minimum	PM	ONE HOUR	16:30	18:00	15	✓
D9	2033 Full Development	AM	ONE HOUR	07:15	08:45	15	✓
D10	2033 Full Development	PM	ONE HOUR	16:30	18:00	15	✓
D11	2026 Residential Phase 1a	AM	ONE HOUR	07:15	08:45	15	✓
D12	2026 Residential Phase 1a	PM	ONE HOUR	16:30	18:00	15	✓
D13	2033 Full Residential	AM	ONE HOUR	07:15	08:45	15	✓
D14	2033 Full Residential	PM	ONE HOUR	16:30	18:00	15	✓
D15	2026 Employment	AM	ONE HOUR	07:15	08:45	15	✓
D16	2026 Employment	PM	ONE HOUR	16:30	18:00	15	✓
D17	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	07:15	08:45	15	✓
D18	2026 P1 (Without Link Road)	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	17.73	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.73	C

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	untitled		
3	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.53	4.18	0.9	22.4	27.3	20.6		
2	3.68	4.29	5.5	31.7	27.3	32.6		
3	3.50	4.02	1.2	23.8	27.3	16.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.564	1172
2	0.573	1263
3	0.573	1190

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	315	100.000
2		ONE HOUR	✓	764	100.000
3		ONE HOUR	✓	800	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	199	116
	2	282	0	482
	3	120	679	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	3
	2	6	0	10
	3	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.46	9.17	0.9	A	289	434
2	0.71	11.21	2.6	B	701	1052
3	0.87	27.34	6.3	D	734	1101

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	237	59	507	886	0.268	236	300	0.0	0.4	5.691	A
2	575	144	88	1213	0.474	571	656	0.0	1.0	6.054	A
3	602	151	211	1069	0.563	597	448	0.0	1.3	7.896	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	283	71	608	829	0.342	283	360	0.4	0.5	6.779	A
2	687	172	105	1203	0.571	685	786	1.0	1.4	7.518	A
3	719	180	253	1045	0.688	716	537	1.3	2.2	11.309	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	347	87	736	757	0.458	346	439	0.5	0.9	8.988	A
2	841	210	128	1189	0.707	837	954	1.4	2.5	10.943	B
3	881	220	309	1013	0.869	866	656	2.2	5.8	23.658	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	347	87	747	751	0.462	347	442	0.9	0.9	9.174	A
2	841	210	129	1189	0.708	841	965	2.5	2.6	11.206	B
3	881	220	310	1012	0.870	879	659	5.8	6.3	27.336	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	283	71	625	820	0.345	284	365	0.9	0.5	6.942	A
2	687	172	106	1202	0.571	691	803	2.6	1.5	7.707	A
3	719	180	255	1044	0.689	735	542	6.3	2.4	12.760	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	237	59	515	881	0.269	238	304	0.5	0.4	5.767	A
2	575	144	88	1212	0.475	577	665	1.5	1.0	6.170	A
3	602	151	213	1068	0.564	606	452	2.4	1.4	8.236	A

2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	17.58	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.58	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022 Base	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	581	100.000
2		ONE HOUR	✓	928	100.000
3		ONE HOUR	✓	587	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	441	140
	2	239	0	689
	3	114	472	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	1	2
	2	2	0	8
	3	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.73	15.20	2.6	C	533	800
2	0.87	24.19	6.5	C	852	1277
3	0.62	9.49	1.7	A	539	808

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	437	109	354	972	0.450	434	264	0.0	0.8	6.731	A
2	699	175	105	1202	0.581	693	683	0.0	1.4	7.436	A
3	442	110	178	1088	0.406	439	620	0.0	0.7	5.737	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	522	131	424	933	0.560	521	316	0.8	1.3	8.804	A
2	834	209	126	1190	0.701	830	818	1.4	2.4	10.526	B
3	528	132	214	1067	0.494	527	743	0.7	1.0	6.892	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	640	160	519	879	0.727	635	384	1.3	2.6	14.574	B
2	1022	255	154	1174	0.870	1007	999	2.4	6.0	21.230	C
3	646	162	259	1041	0.621	644	902	1.0	1.7	9.333	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	640	160	521	878	0.728	639	388	2.6	2.6	15.199	C
2	1022	255	155	1174	0.870	1020	1005	6.0	6.5	24.195	C
3	646	162	263	1040	0.622	646	912	1.7	1.7	9.493	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	522	131	427	931	0.561	528	322	2.6	1.3	9.148	A
2	834	209	128	1189	0.701	850	827	6.5	2.6	11.763	B
3	528	132	219	1065	0.496	530	759	1.7	1.0	7.028	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	437	109	357	971	0.451	439	267	1.3	0.8	6.887	A
2	699	175	107	1202	0.581	703	690	2.6	1.5	7.748	A
3	442	110	181	1086	0.407	443	629	1.0	0.7	5.821	A

2026 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	9.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.91	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	124	100.000
2		ONE HOUR	✓	490	100.000
3		ONE HOUR	✓	813	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	5	119
	2	2	0	488
	3	122	690	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	3
	2	0	0	10
	3	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.18	6.10	0.2	A	114	171
2	0.45	6.11	0.9	A	450	674
3	0.75	12.78	3.1	B	746	1119

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	93	23	517	881	0.106	93	93	0.0	0.1	4.697	A
2	369	92	90	1211	0.305	367	519	0.0	0.5	4.678	A
3	612	153	1	1189	0.515	608	455	0.0	1.1	6.435	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	111	28	619	823	0.135	111	111	0.1	0.2	5.204	A
2	440	110	108	1201	0.367	440	623	0.5	0.6	5.196	A
3	731	183	2	1189	0.615	729	546	1.1	1.6	8.148	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	137	34	756	746	0.183	136	136	0.2	0.2	6.074	A
2	540	135	132	1187	0.454	538	760	0.6	0.9	6.092	A
3	895	224	2	1189	0.753	890	668	1.6	3.0	12.362	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	137	34	761	743	0.184	137	136	0.2	0.2	6.104	A
2	540	135	132	1187	0.455	539	765	0.9	0.9	6.112	A
3	895	224	2	1189	0.753	895	669	3.0	3.1	12.783	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	111	28	626	819	0.136	112	112	0.2	0.2	5.239	A
2	440	110	108	1201	0.367	442	630	0.9	0.6	5.220	A
3	731	183	2	1189	0.615	736	548	3.1	1.7	8.429	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	93	23	522	877	0.106	94	94	0.2	0.1	4.726	A
2	369	92	90	1211	0.305	370	525	0.6	0.5	4.709	A
3	612	153	2	1189	0.515	614	459	1.7	1.1	6.585	A

2026 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Do Minimum	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	144	100.000
2		ONE HOUR	✓	526	100.000
3		ONE HOUR	✓	595	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	2	142
	2	4	0	522
	3	116	478	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	2
	2	0	0	10
	3	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.18	5.13	0.2	A	132	198
2	0.49	6.67	1.1	A	483	724
3	0.55	6.96	1.3	A	546	819

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	108	27	359	970	0.112	108	90	0.0	0.1	4.256	A
2	396	99	107	1201	0.330	394	359	0.0	0.5	4.888	A
3	448	112	3	1188	0.377	445	498	0.0	0.6	4.976	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	129	32	430	930	0.139	129	108	0.1	0.2	4.587	A
2	473	118	128	1189	0.398	472	431	0.5	0.7	5.513	A
3	535	134	4	1188	0.450	534	597	0.6	0.8	5.663	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	159	40	526	875	0.181	158	132	0.2	0.2	5.119	A
2	579	145	157	1173	0.494	578	527	0.7	1.1	6.637	A
3	655	164	4	1188	0.552	653	731	0.8	1.2	6.899	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	159	40	527	875	0.181	159	132	0.2	0.2	5.126	A
2	579	145	157	1172	0.494	579	528	1.1	1.1	6.668	A
3	655	164	4	1188	0.552	655	732	1.2	1.3	6.963	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	129	32	432	928	0.139	130	108	0.2	0.2	4.598	A
2	473	118	129	1189	0.398	474	433	1.1	0.7	5.546	A
3	535	134	4	1188	0.450	537	599	1.3	0.9	5.707	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	108	27	361	968	0.112	109	91	0.2	0.1	4.272	A
2	396	99	108	1201	0.330	397	362	0.7	0.5	4.926	A
3	448	112	3	1188	0.377	449	502	0.9	0.6	5.021	A

2026 Phase 1 (With Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	10.67	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.67	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Phase 1 (With Link Road)	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	64	100.000
2		ONE HOUR	✓	538	100.000
3		ONE HOUR	✓	834	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	5	59
	2	2	0	536
	3	102	731	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	10
	2	0	0	9
	3	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.10	6.07	0.1	A	59	88
2	0.48	6.20	1.0	A	494	741
3	0.77	13.91	3.5	B	765	1148

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	48	12	547	864	0.056	48	78	0.0	0.1	4.816	A
2	405	101	45	1237	0.327	403	550	0.0	0.5	4.692	A
3	628	157	1	1189	0.528	623	446	0.0	1.2	6.635	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	58	14	656	802	0.072	57	93	0.1	0.1	5.276	A
2	484	121	54	1232	0.393	483	660	0.5	0.7	5.233	A
3	750	187	2	1189	0.631	747	535	1.2	1.8	8.521	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	70	18	800	721	0.098	70	114	0.1	0.1	6.039	A
2	592	148	66	1225	0.484	591	805	0.7	1.0	6.175	A
3	918	230	2	1189	0.772	912	655	1.8	3.4	13.353	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	70	18	806	718	0.098	70	114	0.1	0.1	6.069	A
2	592	148	66	1225	0.484	592	810	1.0	1.0	6.200	A
3	918	230	2	1189	0.772	918	656	3.4	3.5	13.913	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	58	14	664	798	0.072	58	94	0.1	0.1	5.311	A
2	484	121	54	1232	0.393	485	667	1.0	0.7	5.260	A
3	750	187	2	1189	0.631	756	537	3.5	1.8	8.869	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	48	12	553	860	0.056	48	79	0.1	0.1	4.842	A
2	405	101	45	1237	0.327	406	556	0.7	0.5	4.723	A
3	628	157	2	1189	0.528	630	449	1.8	1.2	6.805	A

2026 Phase 1 (With Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.92	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Phase 1 (With Link Road)	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	183	100.000
2		ONE HOUR	✓	514	100.000
3		ONE HOUR	✓	624	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	2	181
	2	4	0	510
	3	127	496	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	3
	2	0	0	10
	3	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.23	5.60	0.3	A	168	252
2	0.49	6.80	1.1	A	472	707
3	0.58	7.40	1.4	A	573	859

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	138	34	372	962	0.143	137	98	0.0	0.2	4.489	A
2	387	97	136	1185	0.327	385	373	0.0	0.5	4.935	A
3	470	117	3	1188	0.395	467	518	0.0	0.7	5.123	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	165	41	446	920	0.179	164	118	0.2	0.2	4.901	A
2	462	116	163	1169	0.395	461	447	0.5	0.7	5.585	A
3	561	140	4	1188	0.472	560	621	0.7	0.9	5.894	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	201	50	546	864	0.233	201	144	0.2	0.3	5.587	A
2	566	141	200	1148	0.493	565	547	0.7	1.1	6.764	A
3	687	172	4	1188	0.579	685	760	0.9	1.4	7.352	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	201	50	547	863	0.233	201	144	0.3	0.3	5.599	A
2	566	141	200	1148	0.493	566	548	1.1	1.1	6.798	A
3	687	172	4	1188	0.579	687	762	1.4	1.4	7.404	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	165	41	448	919	0.179	165	118	0.3	0.2	4.916	A
2	462	116	164	1169	0.395	463	449	1.1	0.7	5.622	A
3	561	140	4	1188	0.472	563	624	1.4	0.9	5.948	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	138	34	375	960	0.143	138	99	0.2	0.2	4.507	A
2	387	97	137	1184	0.327	388	376	0.7	0.5	4.975	A
3	470	117	3	1188	0.395	471	522	0.9	0.7	5.176	A

2033 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	11.63	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.63	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2033 Do Minimum	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	131	100.000
2		ONE HOUR	✓	519	100.000
3		ONE HOUR	✓	861	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	5	126
	2	2	0	517
	3	129	731	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	3
	2	0	0	10
	3	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.20	6.46	0.3	A	120	180
2	0.48	6.48	1.0	A	476	714
3	0.80	15.52	4.0	C	790	1185

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	99	25	547	864	0.114	98	98	0.0	0.1	4.835	A
2	391	98	95	1208	0.323	389	550	0.0	0.5	4.819	A
3	648	162	1	1189	0.545	643	482	0.0	1.2	6.843	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	118	29	656	802	0.147	118	117	0.1	0.2	5.408	A
2	467	117	114	1197	0.390	466	659	0.5	0.7	5.407	A
3	774	194	2	1189	0.651	771	578	1.2	1.9	8.964	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	144	36	799	721	0.200	144	143	0.2	0.3	6.412	A
2	571	143	140	1183	0.483	570	804	0.7	1.0	6.449	A
3	948	237	2	1189	0.797	940	707	1.9	3.8	14.717	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	144	36	805	718	0.201	144	144	0.3	0.3	6.456	A
2	571	143	140	1183	0.483	571	810	1.0	1.0	6.476	A
3	948	237	2	1189	0.797	947	709	3.8	4.0	15.521	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	118	29	665	797	0.148	118	119	0.3	0.2	5.455	A
2	467	117	114	1197	0.390	468	668	1.0	0.7	5.436	A
3	774	194	2	1189	0.651	782	580	4.0	2.0	9.425	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	99	25	554	860	0.115	99	99	0.2	0.1	4.867	A
2	391	98	96	1208	0.324	391	557	0.7	0.5	4.852	A
3	648	162	2	1189	0.545	651	486	2.0	1.3	7.044	A

2033 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.12	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2033 Do Minimum	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	153	100.000
2		ONE HOUR	✓	558	100.000
3		ONE HOUR	✓	631	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	2	151
	2	4	0	554
	3	123	507	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	2
	2	0	0	10
	3	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.20	5.33	0.2	A	140	211
2	0.53	7.16	1.2	A	512	768
3	0.59	7.52	1.4	A	579	869

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	115	29	380	957	0.120	115	95	0.0	0.1	4.352	A
2	420	105	114	1197	0.351	418	381	0.0	0.6	5.060	A
3	475	119	3	1188	0.400	472	529	0.0	0.7	5.159	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	138	34	456	915	0.150	137	114	0.1	0.2	4.720	A
2	502	125	136	1185	0.423	501	457	0.6	0.8	5.780	A
3	567	142	4	1188	0.478	566	634	0.7	0.9	5.954	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	168	42	558	857	0.196	168	139	0.2	0.2	5.323	A
2	614	154	167	1167	0.526	613	559	0.8	1.2	7.118	A
3	695	174	4	1188	0.585	693	775	0.9	1.4	7.464	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	168	42	559	857	0.197	168	140	0.2	0.2	5.334	A
2	614	154	167	1167	0.527	614	560	1.2	1.2	7.162	A
3	695	174	4	1188	0.585	695	777	1.4	1.4	7.520	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	138	34	458	914	0.151	138	115	0.2	0.2	4.735	A
2	502	125	137	1184	0.424	503	459	1.2	0.8	5.823	A
3	567	142	4	1188	0.478	569	637	1.4	1.0	6.012	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	115	29	383	956	0.121	115	96	0.2	0.1	4.368	A
2	420	105	115	1197	0.351	421	384	0.8	0.6	5.106	A
3	475	119	3	1188	0.400	476	533	1.0	0.7	5.213	A

2033 Full Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	13.20	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.20	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2033 Full Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	103	100.000
2		ONE HOUR	✓	570	100.000
3		ONE HOUR	✓	892	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	5	98
	2	2	0	568
	3	118	773	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	6
	2	0	0	9
	3	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.16	6.58	0.2	A	95	142
2	0.52	6.85	1.2	A	523	785
3	0.83	18.02	4.7	C	819	1228

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	78	19	578	846	0.092	77	90	0.0	0.1	4.946	A
2	429	107	74	1220	0.352	427	581	0.0	0.6	4.930	A
3	672	168	1	1189	0.565	666	499	0.0	1.3	7.158	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	93	23	693	781	0.119	92	107	0.1	0.1	5.523	A
2	512	128	89	1212	0.423	512	697	0.6	0.8	5.595	A
3	802	200	2	1189	0.674	799	599	1.3	2.1	9.608	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	113	28	844	696	0.163	113	131	0.1	0.2	6.522	A
2	628	157	109	1200	0.523	626	848	0.8	1.2	6.812	A
3	982	246	2	1189	0.826	972	733	2.1	4.5	16.750	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	113	28	851	692	0.164	113	132	0.2	0.2	6.576	A
2	628	157	109	1200	0.523	628	856	1.2	1.2	6.848	A
3	982	246	2	1189	0.826	981	734	4.5	4.7	18.024	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	93	23	704	775	0.120	93	109	0.2	0.1	5.583	A
2	512	128	89	1212	0.423	514	708	1.2	0.8	5.634	A
3	802	200	2	1189	0.674	812	601	4.7	2.2	10.272	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	78	19	586	842	0.092	78	91	0.1	0.1	4.980	A
2	429	107	75	1220	0.352	430	589	0.8	0.6	4.972	A
3	672	168	2	1189	0.565	675	503	2.2	1.4	7.398	A

2033 Full Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.90	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2033 Full Development	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	211	100.000
2		ONE HOUR	✓	548	100.000
3		ONE HOUR	✓	696	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	2	209
	2	4	0	544
	3	167	528	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	2
	2	0	0	10
	3	2	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.28	6.00	0.4	A	194	290
2	0.53	7.51	1.2	A	503	754
3	0.65	8.77	1.8	A	639	958

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	159	40	396	949	0.167	158	128	0.0	0.2	4.638	A
2	413	103	157	1173	0.352	410	397	0.0	0.6	5.175	A
3	524	131	3	1188	0.441	521	564	0.0	0.8	5.515	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	190	47	475	904	0.210	189	153	0.2	0.3	5.134	A
2	493	123	189	1155	0.427	492	475	0.6	0.8	5.962	A
3	626	156	4	1188	0.527	624	677	0.8	1.1	6.543	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	232	58	580	845	0.275	232	188	0.3	0.4	5.987	A
2	603	151	231	1130	0.534	602	581	0.8	1.2	7.459	A
3	766	192	4	1188	0.645	764	828	1.1	1.8	8.666	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	232	58	582	844	0.275	232	188	0.4	0.4	6.005	A
2	603	151	231	1130	0.534	603	583	1.2	1.2	7.510	A
3	766	192	4	1188	0.645	766	830	1.8	1.8	8.775	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	190	47	478	903	0.210	190	154	0.4	0.3	5.157	A
2	493	123	189	1154	0.427	494	479	1.2	0.8	6.010	A
3	626	156	4	1188	0.527	628	680	1.8	1.2	6.644	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	159	40	399	947	0.168	159	129	0.3	0.2	4.662	A
2	413	103	158	1172	0.352	413	400	0.8	0.6	5.224	A
3	524	131	3	1188	0.441	525	569	1.2	0.8	5.592	A

2026 Residential Phase 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	9.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.93	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2026 Residential Phase 1a	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	129	100.000
2		ONE HOUR	✓	490	100.000
3		ONE HOUR	✓	814	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	5	124
	2	2	0	488
	3	123	690	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	2
	2	0	0	10
	3	2	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.19	6.10	0.2	A	118	178
2	0.46	6.14	0.9	A	450	674
3	0.75	12.81	3.1	B	747	1120

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	97	24	517	881	0.110	97	93	0.0	0.1	4.676	A
2	369	92	94	1209	0.305	367	519	0.0	0.5	4.690	A
3	613	153	1	1189	0.515	608	459	0.0	1.1	6.433	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	116	29	619	823	0.141	116	112	0.1	0.2	5.188	A
2	440	110	112	1198	0.368	440	623	0.5	0.6	5.214	A
3	732	183	2	1189	0.615	730	550	1.1	1.6	8.152	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	142	36	756	746	0.190	142	137	0.2	0.2	6.072	A
2	540	135	137	1184	0.456	538	760	0.6	0.9	6.121	A
3	896	224	2	1189	0.754	891	674	1.6	3.0	12.387	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	142	36	761	743	0.191	142	138	0.2	0.2	6.103	A
2	540	135	138	1184	0.456	539	765	0.9	0.9	6.142	A
3	896	224	2	1189	0.754	896	675	3.0	3.1	12.812	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	116	29	626	819	0.142	116	113	0.2	0.2	5.222	A
2	440	110	113	1198	0.368	442	630	0.9	0.6	5.240	A
3	732	183	2	1189	0.615	737	552	3.1	1.7	8.432	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	97	24	522	877	0.111	97	94	0.2	0.1	4.703	A
2	369	92	94	1209	0.305	370	525	0.6	0.5	4.720	A
3	613	153	2	1189	0.515	615	462	1.7	1.1	6.581	A

2026 Residential Phase 1a, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.68	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2026 Residential Phase 1a	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	147	100.000
2		ONE HOUR	✓	526	100.000
3		ONE HOUR	✓	601	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	2	145
	2	4	0	522
	3	122	478	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	2
	2	0	0	10
	3	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.19	5.15	0.2	A	135	202
2	0.49	6.69	1.1	A	483	724
3	0.56	7.05	1.3	A	551	827

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	111	28	359	970	0.114	110	94	0.0	0.1	4.268	A
2	396	99	109	1200	0.330	394	359	0.0	0.5	4.895	A
3	452	113	3	1188	0.381	450	500	0.0	0.6	5.004	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	132	33	430	930	0.142	132	113	0.1	0.2	4.603	A
2	473	118	131	1188	0.398	472	431	0.5	0.7	5.524	A
3	540	135	4	1188	0.455	539	600	0.6	0.8	5.708	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	162	40	526	875	0.185	162	138	0.2	0.2	5.142	A
2	579	145	161	1171	0.495	578	527	0.7	1.1	6.659	A
3	662	165	4	1188	0.557	660	734	0.8	1.3	7.006	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	162	40	527	875	0.185	162	139	0.2	0.2	5.150	A
2	579	145	161	1171	0.495	579	528	1.1	1.1	6.689	A
3	662	165	4	1188	0.557	662	735	1.3	1.3	7.050	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	132	33	432	928	0.142	132	114	0.2	0.2	4.614	A
2	473	118	131	1187	0.398	474	433	1.1	0.7	5.560	A
3	540	135	4	1188	0.455	542	602	1.3	0.9	5.753	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	111	28	361	968	0.114	111	95	0.2	0.1	4.283	A
2	396	99	110	1200	0.330	397	362	0.7	0.5	4.934	A
3	452	113	3	1188	0.381	453	504	0.9	0.6	5.051	A

2033 Full Residential , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	12.26	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.26	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Full Residential	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	94	100.000
2		ONE HOUR	✓	570	100.000
3		ONE HOUR	✓	874	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	5	89
	2	2	0	568
	3	100	773	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	4
	2	0	0	9
	3	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.15	6.35	0.2	A	86	129
2	0.52	6.78	1.2	A	523	785
3	0.81	16.48	4.3	C	802	1203

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	71	18	578	846	0.084	70	76	0.0	0.1	4.815	A
2	429	107	67	1224	0.351	427	581	0.0	0.6	4.906	A
3	658	164	1	1189	0.553	653	493	0.0	1.3	6.968	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	85	21	693	781	0.108	84	91	0.1	0.1	5.363	A
2	512	128	81	1216	0.421	512	697	0.6	0.8	5.560	A
3	786	196	2	1189	0.661	783	591	1.3	2.0	9.219	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	103	26	845	696	0.149	103	111	0.1	0.2	6.305	A
2	628	157	99	1206	0.520	626	849	0.8	1.2	6.745	A
3	962	241	2	1189	0.809	954	723	2.0	4.1	15.508	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	103	26	852	692	0.150	103	112	0.2	0.2	6.349	A
2	628	157	99	1206	0.520	628	856	1.2	1.2	6.781	A
3	962	241	2	1189	0.809	962	724	4.1	4.3	16.477	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	85	21	703	775	0.109	85	93	0.2	0.1	5.412	A
2	512	128	81	1216	0.421	514	707	1.2	0.8	5.596	A
3	786	196	2	1189	0.661	794	593	4.3	2.1	9.755	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	71	18	585	842	0.084	71	77	0.1	0.1	4.846	A
2	429	107	68	1224	0.351	430	588	0.8	0.6	4.946	A
3	658	164	2	1189	0.553	661	496	2.1	1.3	7.185	A

2033 Full Residential , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.75	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.75	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Full Residential	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	196	100.000
2		ONE HOUR	✓	548	100.000
3		ONE HOUR	✓	689	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	2	194
	2	4	0	544
	3	160	528	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	2
	2	0	0	10
	3	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.26	5.85	0.3	A	180	270
2	0.53	7.38	1.2	A	503	754
3	0.64	8.60	1.8	A	632	948

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	148	37	396	949	0.156	147	123	0.0	0.2	4.574	A
2	413	103	146	1179	0.350	410	397	0.0	0.6	5.132	A
3	519	130	3	1188	0.437	516	553	0.0	0.8	5.461	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	176	44	475	904	0.195	176	147	0.2	0.2	5.039	A
2	493	123	175	1162	0.424	492	475	0.6	0.8	5.893	A
3	619	155	4	1188	0.521	618	663	0.8	1.1	6.462	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	216	54	580	845	0.255	215	180	0.2	0.3	5.830	A
2	603	151	214	1140	0.529	602	581	0.8	1.2	7.352	A
3	759	190	4	1188	0.639	756	812	1.1	1.8	8.498	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	216	54	582	844	0.256	216	181	0.3	0.3	5.847	A
2	603	151	215	1140	0.529	603	583	1.2	1.2	7.377	A
3	759	190	4	1188	0.639	759	814	1.8	1.8	8.598	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	176	44	478	903	0.195	177	148	0.3	0.2	5.060	A
2	493	123	176	1162	0.424	494	478	1.2	0.8	5.942	A
3	619	155	4	1188	0.521	622	666	1.8	1.1	6.553	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	148	37	399	947	0.156	148	124	0.2	0.2	4.597	A
2	413	103	147	1178	0.350	413	400	0.8	0.6	5.180	A
3	519	130	3	1188	0.437	520	557	1.1	0.8	5.535	A

2026 Employment, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	10.49	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.49	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2026 Employment	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	132	100.000
2		ONE HOUR	✓	490	100.000
3		ONE HOUR	✓	831	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	5	127
	2	2	0	488
	3	140	690	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	4
	2	0	0	10
	3	4	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.20	6.25	0.3	A	121	182
2	0.46	6.16	0.9	A	450	674
3	0.77	13.71	3.4	B	763	1144

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	99	25	516	881	0.113	99	106	0.0	0.1	4.778	A
2	369	92	96	1208	0.305	367	519	0.0	0.5	4.697	A
3	626	156	1	1189	0.526	621	461	0.0	1.1	6.590	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	119	30	619	823	0.144	118	127	0.1	0.2	5.306	A
2	440	110	115	1197	0.368	440	623	0.5	0.6	5.224	A
3	747	187	2	1189	0.628	745	553	1.1	1.7	8.448	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	145	36	756	746	0.195	145	155	0.2	0.2	6.218	A
2	540	135	141	1182	0.456	538	760	0.6	0.9	6.139	A
3	915	229	2	1189	0.770	909	677	1.7	3.3	13.177	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	145	36	760	743	0.196	145	156	0.2	0.3	6.252	A
2	540	135	141	1182	0.456	539	765	0.9	0.9	6.160	A
3	915	229	2	1189	0.770	915	678	3.3	3.4	13.710	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	119	30	626	819	0.145	119	129	0.3	0.2	5.343	A
2	440	110	115	1197	0.368	442	630	0.9	0.6	5.249	A
3	747	187	2	1189	0.628	753	555	3.4	1.8	8.785	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	99	25	522	877	0.113	100	107	0.2	0.1	4.806	A
2	369	92	97	1207	0.306	370	525	0.6	0.5	4.729	A
3	626	156	2	1189	0.526	628	465	1.8	1.2	6.755	A

2026 Employment, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.74	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2026 Employment	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	159	100.000
2		ONE HOUR	✓	526	100.000
3		ONE HOUR	✓	602	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	2	157
	2	4	0	522
	3	123	478	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	3
	2	0	0	10
	3	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.20	5.30	0.3	A	146	219
2	0.50	6.78	1.1	A	483	724
3	0.56	7.08	1.3	A	552	829

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	120	30	359	970	0.123	119	95	0.0	0.1	4.355	A
2	396	99	118	1195	0.331	394	359	0.0	0.5	4.927	A
3	453	113	3	1188	0.381	451	509	0.0	0.6	5.019	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	143	36	430	930	0.154	143	114	0.1	0.2	4.710	A
2	473	118	142	1181	0.400	472	431	0.5	0.7	5.573	A
3	541	135	4	1188	0.456	540	610	0.6	0.9	5.727	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	175	44	526	875	0.200	175	139	0.2	0.3	5.288	A
2	579	145	174	1163	0.498	578	527	0.7	1.1	6.742	A
3	663	166	4	1188	0.558	661	747	0.9	1.3	7.035	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	175	44	527	875	0.200	175	140	0.3	0.3	5.298	A
2	579	145	174	1163	0.498	579	528	1.1	1.1	6.776	A
3	663	166	4	1188	0.558	663	749	1.3	1.3	7.079	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	143	36	432	928	0.154	143	115	0.3	0.2	4.723	A
2	473	118	142	1181	0.400	474	433	1.1	0.7	5.607	A
3	541	135	4	1188	0.456	543	613	1.3	0.9	5.773	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	120	30	361	968	0.124	120	96	0.2	0.1	4.370	A
2	396	99	119	1194	0.332	397	362	0.7	0.5	4.964	A
3	453	113	3	1188	0.381	454	513	0.9	0.6	5.066	A

2026 Phase 1 (Without Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	10.49	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.49	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	138	100.000
2		ONE HOUR	✓	490	100.000
3		ONE HOUR	✓	831	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	5	133
	2	2	0	488
	3	140	690	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	4
	2	0	0	10
	3	4	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.20	6.32	0.3	A	127	190
2	0.46	6.20	0.9	A	450	674
3	0.77	13.71	3.4	B	763	1144

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	104	26	516	881	0.118	103	106	0.0	0.1	4.806	A
2	369	92	100	1205	0.306	367	519	0.0	0.5	4.712	A
3	626	156	1	1189	0.526	621	466	0.0	1.1	6.590	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	124	31	619	823	0.151	124	127	0.1	0.2	5.347	A
2	440	110	120	1194	0.369	440	623	0.5	0.6	5.246	A
3	747	187	2	1189	0.628	745	558	1.1	1.7	8.448	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	152	38	756	746	0.204	152	155	0.2	0.3	6.288	A
2	540	135	147	1178	0.458	538	760	0.6	0.9	6.173	A
3	915	229	2	1189	0.770	909	683	1.7	3.3	13.177	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	152	38	760	743	0.204	152	156	0.3	0.3	6.322	A
2	540	135	148	1178	0.458	539	765	0.9	0.9	6.197	A
3	915	229	2	1189	0.770	915	685	3.3	3.4	13.710	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	124	31	626	819	0.152	124	129	0.3	0.2	5.388	A
2	440	110	121	1194	0.369	442	630	0.9	0.6	5.273	A
3	747	187	2	1189	0.628	753	561	3.4	1.8	8.785	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	104	26	522	877	0.118	104	107	0.2	0.1	4.836	A
2	369	92	101	1205	0.306	370	525	0.6	0.5	4.742	A
3	626	156	2	1189	0.526	628	469	1.8	1.2	6.758	A

2026 P1 (Without Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.79	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2026 P1 (Without Link Road)	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	162	100.000
2		ONE HOUR	✓	526	100.000
3		ONE HOUR	✓	608	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	2	160
	2	4	0	522
	3	129	478	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	3
	2	0	0	10
	3	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.20	5.32	0.3	A	149	223
2	0.50	6.80	1.1	A	483	724
3	0.56	7.17	1.3	A	558	837

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	122	30	359	970	0.126	121	100	0.0	0.1	4.366	A
2	396	99	121	1194	0.332	394	359	0.0	0.5	4.935	A
3	458	114	3	1188	0.385	455	511	0.0	0.6	5.051	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	36	430	930	0.157	145	119	0.1	0.2	4.726	A
2	473	118	145	1180	0.401	472	431	0.5	0.7	5.585	A
3	547	137	4	1188	0.460	546	613	0.6	0.9	5.776	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	178	45	526	875	0.204	178	146	0.2	0.3	5.313	A
2	579	145	177	1161	0.499	578	527	0.7	1.1	6.764	A
3	669	167	4	1188	0.564	668	750	0.9	1.3	7.122	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	178	45	527	875	0.204	178	146	0.3	0.3	5.323	A
2	579	145	177	1161	0.499	579	528	1.1	1.1	6.798	A
3	669	167	4	1188	0.564	669	752	1.3	1.3	7.170	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	36	432	928	0.157	146	120	0.3	0.2	4.740	A
2	473	118	145	1180	0.401	474	433	1.1	0.7	5.622	A
3	547	137	4	1188	0.460	548	616	1.3	0.9	5.823	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	122	30	361	968	0.126	122	100	0.2	0.1	4.381	A
2	396	99	121	1193	0.332	397	362	0.7	0.6	4.973	A
3	458	114	3	1188	0.385	459	515	0.9	0.7	5.100	A

Appendix J-10

Junctions 10 Output – Higham Lane / Capitol Close Roundabout

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: 2023-10-30 Higham Lane_Capitol Close Rbt.j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Higham Lane - Capitol Close
Report generation date: 09/11/2023 12:16:04

»2026 Do Minimum, AM
»2026 Do Minimum, PM
»2026 Phase 1 (With Link Road), AM
»2026 Phase 1 (With Link Road), PM
»2033 Do Minimum, AM
»2033 Do Minimum, PM
»2033 Full Development, AM
»2033 Full Development, PM
»2026 Residential Phase 1a, AM
»2026 Residential Phase 1a, PM
»2033 Full Residential, AM
»2033 Full Residential, PM
»2026 Employment, AM
»2026 Employment, PM
»2026 Phase 1 (Without Link Road), AM
»2026 Phase 1 (Without Link Road), PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2026 Do Minimum					
Arm 1	0.4	3.46	0.26	0.3	3.18	0.21
Arm 2	0.1	3.32	0.11	0.1	3.18	0.10
Arm 3	0.5	4.58	0.31	1.2	6.81	0.55
Arm 4	0.0	3.16	0.02	0.1	3.79	0.06
	2026 Phase 1 (With Link Road)					
Arm 1	0.6	3.94	0.35	0.5	3.90	0.32
Arm 2	0.1	3.61	0.10	0.1	3.47	0.12
Arm 3	0.5	4.84	0.31	1.6	7.93	0.60
Arm 4	0.0	3.17	0.02	0.1	3.92	0.07
	2033 Do Minimum					
Arm 1	0.4	3.53	0.27	0.3	3.24	0.22
Arm 2	0.1	3.38	0.12	0.1	3.22	0.11
Arm 3	0.5	4.71	0.32	1.4	7.35	0.58
Arm 4	0.0	3.19	0.02	0.1	3.87	0.07
	2033 Full Development					
Arm 1	0.7	4.26	0.39	0.8	4.74	0.44
Arm 2	0.1	3.75	0.12	0.2	3.92	0.17
Arm 3	1.0	6.25	0.48	2.7	11.35	0.73
Arm 4	0.0	3.48	0.02	0.1	4.27	0.07
	2026 Residential Phase 1a					
Arm 1	0.4	3.48	0.26	0.3	3.24	0.22
Arm 2	0.1	3.30	0.11	0.1	3.22	0.11
Arm 3	0.5	4.67	0.33	1.3	6.98	0.56
Arm 4	0.0	3.20	0.02	0.1	3.81	0.06
	2033 Full Residential					
Arm 1	0.5	3.68	0.31	0.7	4.35	0.41
Arm 2	0.1	3.40	0.10	0.2	3.75	0.16
Arm 3	0.7	5.47	0.42	1.7	8.31	0.63
Arm 4	0.0	3.37	0.02	0.1	4.00	0.07
	2026 Employment					
Arm 1	0.5	3.97	0.34	0.3	3.46	0.24
Arm 2	0.2	3.63	0.13	0.1	3.30	0.11
Arm 3	0.6	5.17	0.36	1.8	8.78	0.64
Arm 4	0.0	3.26	0.02	0.1	4.03	0.07
	2026 Phase 1 (Without Link Road)					
Arm 1	0.6	4.00	0.34	0.4	3.53	0.25
Arm 2	0.2	3.63	0.13	0.1	3.35	0.11
Arm 3	0.7	5.32	0.38	1.9	9.09	0.66
Arm 4	0.0	3.29	0.02	0.1	4.07	0.07

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

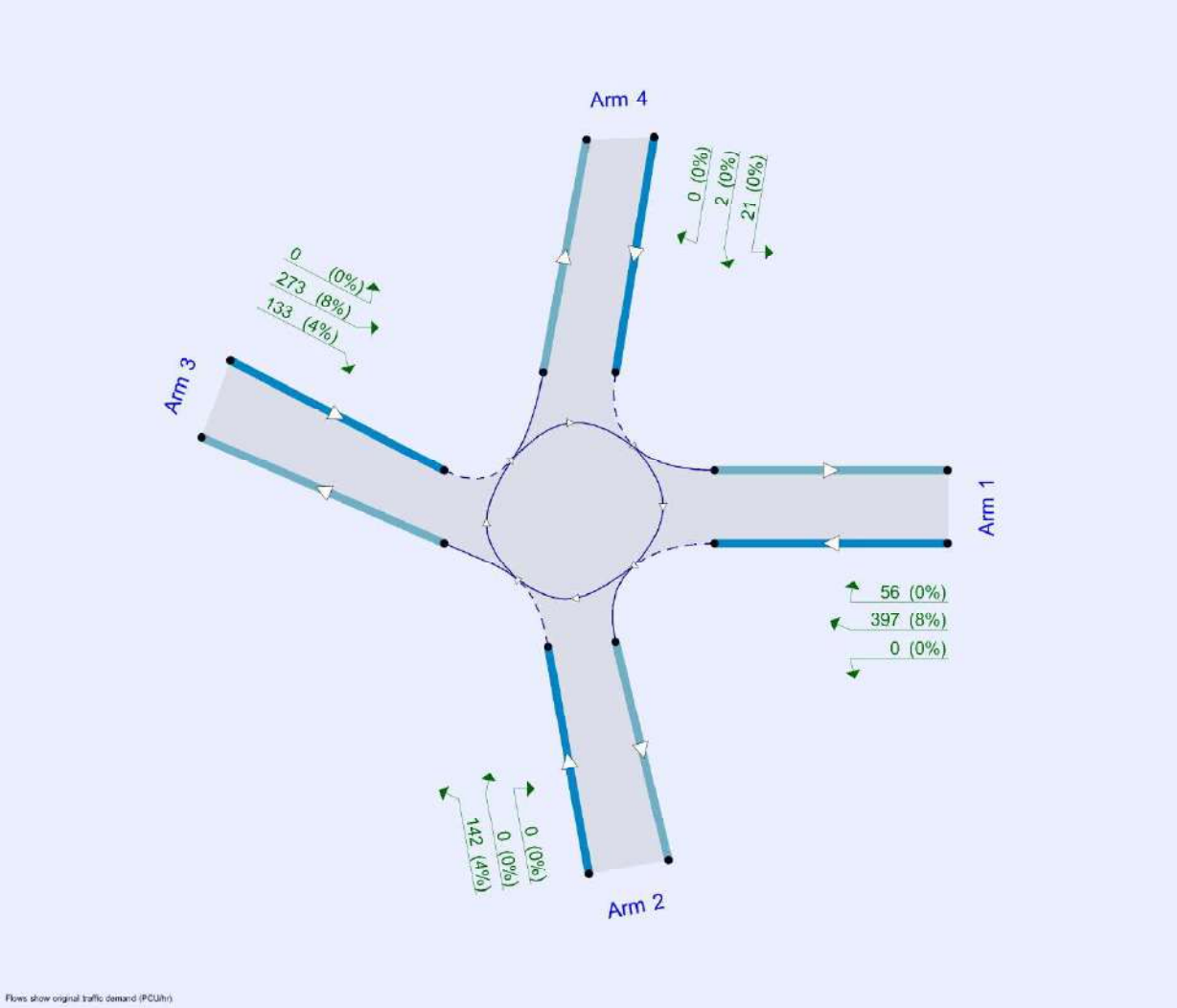
File summary

File Description

Title	Higham Lane_Capitol Close Rbt
Location	
Site number	
Date	08/11/2023
Version	
Status	(new file)
Identifier	
Client	Strata Sterling Barnsley West Ltd
Jobnumber	
Enumerator	Fore Consulting Ltd
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D3	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D4	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D5	2033 Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓
D6	2033 Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D7	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓
D8	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓
D9	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓
D10	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓
D11	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓
D12	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓
D13	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓
D14	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓
D15	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D16	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2026 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.88	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.88	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	untitled		
3	untitled		
4	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	4.32	4.90	26.7	21.5	60.0	17.8		
2	4.11	4.70	2.0	30.7	60.1	9.3		
3	3.32	4.04	2.2	40.0	60.0	14.8		
4	3.89	4.45	2.8	21.3	60.0	16.8		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.541	1541
2	0.538	1456
3	0.490	1198
4	0.508	1345

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	341	100.000
2		ONE HOUR	✓	127	100.000
3		ONE HOUR	✓	324	100.000
4		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	285	56
	2	0	0	122	5
	3	205	119	0	0
	4	21	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	3	0
	3	3	3	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.26	3.46	0.4	A	313	469
2	0.11	3.32	0.1	A	117	175
3	0.31	4.58	0.5	A	297	446
4	0.02	3.16	0.0	A	21	32

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	257	64	91	1492	0.172	256	169	0.0	0.2	3.057	A
2	96	24	256	1319	0.073	95	91	0.0	0.1	3.027	A
3	244	61	46	1176	0.207	243	305	0.0	0.3	3.970	A
4	17	4	243	1221	0.014	17	46	0.0	0.0	2.989	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	307	77	109	1482	0.207	306	203	0.2	0.3	3.214	A
2	114	29	306	1291	0.088	114	109	0.1	0.1	3.145	A
3	291	73	55	1172	0.249	291	366	0.3	0.3	4.210	A
4	21	5	291	1197	0.017	21	55	0.0	0.0	3.060	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	375	94	133	1469	0.256	375	249	0.3	0.4	3.455	A
2	140	35	375	1254	0.111	140	133	0.1	0.1	3.321	A
3	357	89	67	1165	0.306	356	448	0.3	0.5	4.580	A
4	25	6	356	1164	0.022	25	67	0.0	0.0	3.161	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	375	94	133	1469	0.256	375	249	0.4	0.4	3.456	A
2	140	35	375	1254	0.111	140	133	0.1	0.1	3.322	A
3	357	89	67	1165	0.306	357	448	0.5	0.5	4.584	A
4	25	6	357	1163	0.022	25	67	0.0	0.0	3.162	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	307	77	109	1482	0.207	307	203	0.4	0.3	3.216	A
2	114	29	307	1291	0.088	114	109	0.1	0.1	3.146	A
3	291	73	55	1171	0.249	292	366	0.5	0.3	4.218	A
4	21	5	292	1196	0.017	21	55	0.0	0.0	3.063	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	257	64	91	1491	0.172	257	170	0.3	0.2	3.061	A
2	96	24	257	1318	0.073	96	91	0.1	0.1	3.029	A
3	244	61	46	1176	0.207	244	307	0.3	0.3	3.982	A
4	17	4	244	1221	0.014	17	46	0.0	0.0	2.991	A

2026 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.28	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	271	100.000
2		ONE HOUR	✓	118	100.000
3		ONE HOUR	✓	589	100.000
4		ONE HOUR	✓	59	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	246	25
	2	0	0	116	2
	3	447	142	0	0
	4	48	11	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	3	0
	3	1	2	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.21	3.18	0.3	A	249	373
2	0.10	3.18	0.1	A	108	162
3	0.55	6.81	1.2	A	540	811
4	0.06	3.79	0.1	A	54	81

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	204	51	115	1479	0.138	203	371	0.0	0.2	2.872	A
2	89	22	203	1347	0.066	89	115	0.0	0.1	2.945	A
3	443	111	20	1188	0.373	441	272	0.0	0.6	4.860	A
4	44	11	441	1121	0.040	44	20	0.0	0.0	3.344	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	244	61	137	1466	0.166	243	444	0.2	0.2	2.997	A
2	106	27	243	1325	0.080	106	137	0.1	0.1	3.039	A
3	529	132	24	1187	0.446	529	325	0.6	0.8	5.533	A
4	53	13	529	1076	0.049	53	24	0.0	0.1	3.518	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	298	75	168	1450	0.206	298	544	0.2	0.3	3.182	A
2	130	32	298	1296	0.100	130	168	0.1	0.1	3.177	A
3	649	162	30	1184	0.548	647	398	0.8	1.2	6.767	A
4	65	16	647	1016	0.064	65	30	0.1	0.1	3.784	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	298	75	168	1449	0.206	298	545	0.3	0.3	3.183	A
2	130	32	298	1296	0.100	130	168	0.1	0.1	3.178	A
3	649	162	30	1184	0.548	648	399	1.2	1.2	6.807	A
4	65	16	648	1015	0.064	65	30	0.1	0.1	3.788	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	244	61	138	1466	0.166	244	446	0.3	0.2	3.001	A
2	106	27	244	1325	0.080	106	138	0.1	0.1	3.040	A
3	529	132	24	1186	0.446	531	326	1.2	0.8	5.575	A
4	53	13	531	1075	0.049	53	24	0.1	0.1	3.525	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	204	51	115	1478	0.138	204	373	0.2	0.2	2.878	A
2	89	22	204	1346	0.066	89	115	0.1	0.1	2.946	A
3	443	111	20	1188	0.373	444	273	0.8	0.6	4.903	A
4	44	11	444	1119	0.040	44	20	0.1	0.0	3.350	A

2026 Phase 1 (With Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.20	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	479	100.000
2		ONE HOUR	✓	107	100.000
3		ONE HOUR	✓	327	100.000
4		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	423	56
	2	0	0	102	5
	3	268	59	0	0
	4	21	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	8	0
	2	0	0	6	0
	3	8	10	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.35	3.94	0.6	A	440	659
2	0.10	3.61	0.1	A	98	147
3	0.31	4.84	0.5	A	300	450
4	0.02	3.17	0.0	A	21	32

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	361	90	46	1516	0.238	359	217	0.0	0.3	3.328	A
2	81	20	359	1263	0.064	80	46	0.0	0.1	3.217	A
3	246	62	46	1176	0.209	245	394	0.0	0.3	4.185	A
4	17	4	245	1220	0.014	17	46	0.0	0.0	2.992	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	431	108	55	1511	0.285	430	260	0.3	0.4	3.564	A
2	96	24	430	1225	0.079	96	55	0.1	0.1	3.370	A
3	294	73	55	1172	0.251	294	472	0.3	0.4	4.442	A
4	21	5	294	1195	0.017	21	55	0.0	0.0	3.063	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	527	132	67	1504	0.351	527	318	0.4	0.6	3.937	A
2	118	29	527	1173	0.100	118	67	0.1	0.1	3.605	A
3	360	90	67	1166	0.309	360	577	0.4	0.5	4.836	A
4	25	6	360	1162	0.022	25	67	0.0	0.0	3.166	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	527	132	67	1504	0.351	527	318	0.6	0.6	3.942	A
2	118	29	527	1173	0.100	118	67	0.1	0.1	3.606	A
3	360	90	67	1165	0.309	360	578	0.5	0.5	4.842	A
4	25	6	360	1162	0.022	25	67	0.0	0.0	3.167	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	431	108	55	1511	0.285	431	260	0.6	0.4	3.571	A
2	96	24	431	1224	0.079	96	55	0.1	0.1	3.375	A
3	294	73	55	1171	0.251	294	473	0.5	0.4	4.449	A
4	21	5	294	1195	0.017	21	55	0.0	0.0	3.067	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	361	90	46	1516	0.238	361	218	0.4	0.3	3.338	A
2	81	20	361	1262	0.064	81	46	0.1	0.1	3.222	A
3	246	62	46	1176	0.209	246	396	0.4	0.3	4.198	A
4	17	4	246	1219	0.014	17	46	0.0	0.0	2.994	A

2026 Phase 1 (With Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.94	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	418	100.000
2		ONE HOUR	✓	129	100.000
3		ONE HOUR	✓	648	100.000
4		ONE HOUR	✓	59	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	393	25
	2	0	0	127	2
	3	467	181	0	0
	4	48	11	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	5	0
	2	0	0	3	0
	3	4	3	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.32	3.90	0.5	A	384	575
2	0.12	3.47	0.1	A	118	178
3	0.60	7.93	1.6	A	595	892
4	0.07	3.92	0.1	A	54	81

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	315	79	144	1463	0.215	314	386	0.0	0.3	3.276	A
2	97	24	314	1288	0.075	97	144	0.0	0.1	3.112	A
3	488	122	20	1188	0.410	485	390	0.0	0.7	5.287	A
4	44	11	485	1098	0.040	44	20	0.0	0.0	3.415	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	376	94	172	1447	0.260	375	462	0.3	0.4	3.516	A
2	116	29	375	1254	0.092	116	172	0.1	0.1	3.255	A
3	583	146	24	1187	0.491	581	467	0.7	1.0	6.159	A
4	53	13	581	1049	0.051	53	24	0.0	0.1	3.613	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	460	115	211	1427	0.323	460	565	0.4	0.5	3.896	A
2	142	36	460	1209	0.117	142	211	0.1	0.1	3.472	A
3	713	178	30	1184	0.603	711	572	1.0	1.5	7.863	A
4	65	16	711	983	0.066	65	30	0.1	0.1	3.920	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	460	115	211	1426	0.323	460	567	0.5	0.5	3.901	A
2	142	36	460	1209	0.118	142	211	0.1	0.1	3.473	A
3	713	178	30	1184	0.603	713	573	1.5	1.6	7.934	A
4	65	16	713	982	0.066	65	30	0.1	0.1	3.925	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	376	94	173	1447	0.260	376	465	0.5	0.4	3.523	A
2	116	29	376	1254	0.092	116	173	0.1	0.1	3.259	A
3	583	146	24	1186	0.491	585	468	1.6	1.0	6.226	A
4	53	13	585	1047	0.051	53	24	0.1	0.1	3.619	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	315	79	145	1462	0.215	315	389	0.4	0.3	3.285	A
2	97	24	315	1287	0.075	97	145	0.1	0.1	3.117	A
3	488	122	20	1188	0.411	489	392	1.0	0.7	5.346	A
4	44	11	489	1096	0.041	44	20	0.1	0.0	3.425	A

2033 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.97	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2033 Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	358	100.000
2		ONE HOUR	✓	134	100.000
3		ONE HOUR	✓	343	100.000
4		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	302	56
	2	0	0	129	5
	3	217	126	0	0
	4	21	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	3	0
	3	3	3	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.27	3.53	0.4	A	329	493
2	0.12	3.38	0.1	A	123	184
3	0.32	4.71	0.5	A	315	472
4	0.02	3.19	0.0	A	21	32

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	270	67	96	1489	0.181	269	178	0.0	0.2	3.097	A
2	101	25	269	1312	0.077	101	96	0.0	0.1	3.058	A
3	258	65	46	1176	0.220	257	323	0.0	0.3	4.030	A
4	17	4	257	1214	0.014	17	46	0.0	0.0	3.007	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	322	80	115	1478	0.218	322	214	0.2	0.3	3.267	A
2	120	30	322	1283	0.094	120	115	0.1	0.1	3.184	A
3	308	77	55	1172	0.263	308	387	0.3	0.4	4.293	A
4	21	5	308	1188	0.017	21	55	0.0	0.0	3.082	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	394	99	141	1464	0.269	394	262	0.3	0.4	3.531	A
2	148	37	394	1244	0.119	147	141	0.1	0.1	3.375	A
3	378	94	67	1165	0.324	377	474	0.4	0.5	4.700	A
4	25	6	377	1153	0.022	25	67	0.0	0.0	3.191	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	394	99	141	1464	0.269	394	262	0.4	0.4	3.531	A
2	148	37	394	1244	0.119	148	141	0.1	0.1	3.376	A
3	378	94	67	1165	0.324	378	475	0.5	0.5	4.706	A
4	25	6	378	1153	0.022	25	67	0.0	0.0	3.192	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	322	80	115	1478	0.218	322	214	0.4	0.3	3.270	A
2	120	30	322	1283	0.094	121	115	0.1	0.1	3.188	A
3	308	77	55	1171	0.263	309	388	0.5	0.4	4.302	A
4	21	5	309	1188	0.017	21	55	0.0	0.0	3.086	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	270	67	96	1488	0.181	270	179	0.3	0.2	3.104	A
2	101	25	270	1311	0.077	101	96	0.1	0.1	3.060	A
3	258	65	46	1176	0.220	259	325	0.4	0.3	4.043	A
4	17	4	259	1213	0.014	17	46	0.0	0.0	3.011	A

2033 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.62	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2033 Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	286	100.000
2		ONE HOUR	✓	125	100.000
3		ONE HOUR	✓	625	100.000
4		ONE HOUR	✓	59	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	261	25
	2	0	0	123	2
	3	474	151	0	0
	4	48	11	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	3	0
	3	1	2	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.22	3.24	0.3	A	262	394
2	0.11	3.22	0.1	A	115	172
3	0.58	7.35	1.4	A	574	860
4	0.07	3.87	0.1	A	54	81

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	215	54	121	1475	0.146	215	391	0.0	0.2	2.907	A
2	94	24	215	1341	0.070	94	121	0.0	0.1	2.972	A
3	471	118	20	1188	0.396	468	288	0.0	0.7	5.040	A
4	44	11	468	1107	0.040	44	20	0.0	0.0	3.387	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	257	64	145	1462	0.176	257	468	0.2	0.2	3.041	A
2	112	28	257	1318	0.085	112	145	0.1	0.1	3.073	A
3	562	140	24	1187	0.474	561	345	0.7	0.9	5.815	A
4	53	13	561	1060	0.050	53	24	0.0	0.1	3.575	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	315	79	178	1444	0.218	315	573	0.2	0.3	3.244	A
2	138	34	315	1287	0.107	138	178	0.1	0.1	3.223	A
3	688	172	30	1184	0.581	686	422	0.9	1.4	7.297	A
4	65	16	686	996	0.065	65	30	0.1	0.1	3.866	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	315	79	178	1444	0.218	315	575	0.3	0.3	3.245	A
2	138	34	315	1287	0.107	138	178	0.1	0.1	3.224	A
3	688	172	30	1184	0.581	688	423	1.4	1.4	7.348	A
4	65	16	688	995	0.065	65	30	0.1	0.1	3.870	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	257	64	146	1462	0.176	257	471	0.3	0.2	3.046	A
2	112	28	257	1318	0.085	112	146	0.1	0.1	3.076	A
3	562	140	24	1186	0.474	564	346	1.4	0.9	5.869	A
4	53	13	564	1058	0.050	53	24	0.1	0.1	3.581	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	215	54	122	1474	0.146	215	394	0.2	0.2	2.913	A
2	94	24	215	1340	0.070	94	122	0.1	0.1	2.976	A
3	471	118	20	1188	0.396	472	289	0.9	0.7	5.090	A
4	44	11	472	1105	0.040	44	20	0.1	0.0	3.393	A

2033 Full Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.05	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	531	100.000
2		ONE HOUR	✓	123	100.000
3		ONE HOUR	✓	508	100.000
4		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	475	56
	2	0	0	118	5
	3	410	98	0	0
	4	21	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	7	0
	2	0	0	5	0
	3	5	6	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.39	4.26	0.7	A	487	731
2	0.12	3.75	0.1	A	113	169
3	0.48	6.25	1.0	A	466	699
4	0.02	3.48	0.0	A	21	32

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	400	100	75	1500	0.266	398	323	0.0	0.4	3.466	A
2	93	23	398	1242	0.075	92	75	0.0	0.1	3.281	A
3	382	96	46	1176	0.325	380	445	0.0	0.5	4.749	A
4	17	4	380	1151	0.015	17	46	0.0	0.0	3.173	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	119	90	1492	0.320	477	387	0.4	0.5	3.764	A
2	111	28	477	1200	0.092	110	90	0.1	0.1	3.462	A
3	457	114	55	1172	0.390	456	533	0.5	0.7	5.288	A
4	21	5	456	1113	0.019	21	55	0.0	0.0	3.295	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	585	146	110	1481	0.395	584	474	0.5	0.7	4.258	A
2	135	34	584	1142	0.119	135	110	0.1	0.1	3.745	A
3	559	140	67	1166	0.480	558	652	0.7	1.0	6.225	A
4	25	6	558	1061	0.024	25	67	0.0	0.0	3.475	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	585	146	110	1481	0.395	585	475	0.7	0.7	4.265	A
2	135	34	585	1142	0.119	135	110	0.1	0.1	3.747	A
3	559	140	67	1165	0.480	559	653	1.0	1.0	6.246	A
4	25	6	559	1060	0.024	25	67	0.0	0.0	3.477	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	119	90	1492	0.320	478	388	0.7	0.5	3.773	A
2	111	28	478	1199	0.092	111	90	0.1	0.1	3.465	A
3	457	114	55	1171	0.390	458	534	1.0	0.7	5.314	A
4	21	5	458	1112	0.019	21	55	0.0	0.0	3.300	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	400	100	75	1500	0.267	400	325	0.5	0.4	3.477	A
2	93	23	400	1241	0.075	93	75	0.1	0.1	3.287	A
3	382	96	46	1176	0.325	383	447	0.7	0.5	4.780	A
4	17	4	383	1150	0.015	17	46	0.0	0.0	3.177	A

2033 Full Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.91	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	564	100.000
2		ONE HOUR	✓	169	100.000
3		ONE HOUR	✓	780	100.000
4		ONE HOUR	✓	59	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	539	25
	2	0	0	167	2
	3	571	209	0	0
	4	48	11	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	4	0
	2	0	0	2	0
	3	3	2	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.44	4.74	0.8	A	518	776
2	0.17	3.92	0.2	A	155	233
3	0.73	11.35	2.7	B	716	1074
4	0.07	4.27	0.1	A	54	81

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	425	106	165	1452	0.293	423	463	0.0	0.4	3.626	A
2	127	32	423	1229	0.104	127	165	0.0	0.1	3.329	A
3	587	147	20	1188	0.494	583	529	0.0	1.0	6.073	A
4	44	11	583	1048	0.042	44	20	0.0	0.0	3.585	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	507	127	197	1434	0.354	506	555	0.4	0.6	4.027	A
2	152	38	506	1184	0.128	152	197	0.1	0.1	3.556	A
3	701	175	24	1187	0.591	699	634	1.0	1.5	7.562	A
4	53	13	699	989	0.054	53	24	0.0	0.1	3.845	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	621	155	241	1410	0.440	620	678	0.6	0.8	4.724	A
2	186	47	620	1123	0.166	186	241	0.1	0.2	3.917	A
3	859	215	30	1184	0.725	854	776	1.5	2.6	11.063	B
4	65	16	854	910	0.071	65	30	0.1	0.1	4.257	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	621	155	242	1410	0.441	621	681	0.8	0.8	4.738	A
2	186	47	621	1122	0.166	186	242	0.2	0.2	3.920	A
3	859	215	30	1184	0.725	859	777	2.6	2.7	11.351	B
4	65	16	859	908	0.072	65	30	0.1	0.1	4.268	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	507	127	199	1433	0.354	508	560	0.8	0.6	4.046	A
2	152	38	508	1183	0.128	152	199	0.2	0.2	3.560	A
3	701	175	24	1186	0.591	706	636	2.7	1.5	7.766	A
4	53	13	706	986	0.054	53	24	0.1	0.1	3.859	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	425	106	166	1451	0.293	425	468	0.6	0.4	3.648	A
2	127	32	425	1228	0.104	127	166	0.2	0.1	3.336	A
3	587	147	20	1188	0.494	589	532	1.5	1.0	6.194	A
4	44	11	589	1045	0.043	44	20	0.1	0.0	3.599	A

2026 Residential Phase 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.94	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	346	100.000
2		ONE HOUR	✓	128	100.000
3		ONE HOUR	✓	345	100.000
4		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	290	56
	2	0	0	123	5
	3	221	124	0	0
	4	21	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	2	0
	3	2	2	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.26	3.48	0.4	A	317	476
2	0.11	3.30	0.1	A	117	176
3	0.33	4.67	0.5	A	317	475
4	0.02	3.20	0.0	A	21	32

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	260	65	94	1490	0.175	260	181	0.0	0.2	3.071	A
2	96	24	260	1317	0.073	96	94	0.0	0.1	3.006	A
3	260	65	46	1176	0.221	259	310	0.0	0.3	3.998	A
4	17	4	259	1213	0.014	17	46	0.0	0.0	3.009	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	311	78	113	1479	0.210	311	217	0.2	0.3	3.233	A
2	115	29	311	1289	0.089	115	113	0.1	0.1	3.124	A
3	310	78	55	1172	0.265	310	371	0.3	0.4	4.260	A
4	21	5	310	1187	0.017	21	55	0.0	0.0	3.085	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	381	95	139	1466	0.260	381	266	0.3	0.4	3.483	A
2	141	35	381	1252	0.113	141	139	0.1	0.1	3.302	A
3	380	95	67	1165	0.326	379	454	0.4	0.5	4.667	A
4	25	6	379	1152	0.022	25	67	0.0	0.0	3.194	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	381	95	139	1466	0.260	381	266	0.4	0.4	3.483	A
2	141	35	381	1251	0.113	141	139	0.1	0.1	3.303	A
3	380	95	67	1165	0.326	380	455	0.5	0.5	4.673	A
4	25	6	380	1152	0.022	25	67	0.0	0.0	3.195	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	311	78	113	1479	0.210	311	218	0.4	0.3	3.238	A
2	115	29	311	1289	0.089	115	113	0.1	0.1	3.126	A
3	310	78	55	1171	0.265	311	372	0.5	0.4	4.269	A
4	21	5	311	1187	0.017	21	55	0.0	0.0	3.086	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	260	65	95	1489	0.175	261	182	0.3	0.2	3.076	A
2	96	24	261	1316	0.073	96	95	0.1	0.1	3.008	A
3	260	65	46	1176	0.221	260	311	0.4	0.3	4.012	A
4	17	4	260	1213	0.014	17	46	0.0	0.0	3.013	A

2026 Residential Phase 1a, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.37	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	288	100.000
2		ONE HOUR	✓	124	100.000
3		ONE HOUR	✓	601	100.000
4		ONE HOUR	✓	59	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	263	25
	2	0	0	122	2
	3	456	145	0	0
	4	48	11	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	3	0
	3	1	2	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.22	3.24	0.3	A	264	396
2	0.11	3.22	0.1	A	114	171
3	0.56	6.98	1.3	A	551	827
4	0.06	3.81	0.1	A	54	81

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	217	54	117	1477	0.147	216	377	0.0	0.2	2.904	A
2	93	23	216	1340	0.070	93	117	0.0	0.1	2.972	A
3	452	113	20	1188	0.381	450	289	0.0	0.6	4.920	A
4	44	11	450	1116	0.040	44	20	0.0	0.0	3.358	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	259	65	140	1465	0.177	259	452	0.2	0.2	3.038	A
2	111	28	259	1317	0.085	111	140	0.1	0.1	3.073	A
3	540	135	24	1187	0.455	539	346	0.6	0.8	5.623	A
4	53	13	539	1071	0.050	53	24	0.0	0.1	3.537	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	317	79	171	1448	0.219	317	554	0.2	0.3	3.240	A
2	137	34	317	1286	0.106	136	171	0.1	0.1	3.224	A
3	662	165	30	1184	0.559	660	424	0.8	1.3	6.935	A
4	65	16	660	1009	0.064	65	30	0.1	0.1	3.811	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	317	79	172	1448	0.219	317	555	0.3	0.3	3.241	A
2	137	34	317	1286	0.106	137	172	0.1	0.1	3.224	A
3	662	165	30	1184	0.559	662	424	1.3	1.3	6.979	A
4	65	16	662	1008	0.064	65	30	0.1	0.1	3.815	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	259	65	141	1465	0.177	259	454	0.3	0.2	3.043	A
2	111	28	259	1317	0.085	112	141	0.1	0.1	3.074	A
3	540	135	24	1186	0.455	542	346	1.3	0.9	5.668	A
4	53	13	542	1069	0.050	53	24	0.1	0.1	3.542	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	217	54	118	1477	0.147	217	380	0.2	0.2	2.911	A
2	93	23	217	1339	0.070	93	118	0.1	0.1	2.976	A
3	452	113	20	1188	0.381	453	290	0.9	0.6	4.966	A
4	44	11	453	1114	0.040	44	20	0.1	0.0	3.364	A

2033 Full Residential, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.45	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	424	100.000
2		ONE HOUR	✓	105	100.000
3		ONE HOUR	✓	447	100.000
4		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	368	56
	2	0	0	100	5
	3	358	89	0	0
	4	21	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	5	0
	2	0	0	3	0
	3	2	4	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.31	3.68	0.5	A	389	584
2	0.10	3.40	0.1	A	96	145
3	0.42	5.47	0.7	A	410	615
4	0.02	3.37	0.0	A	21	32

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	319	80	68	1504	0.212	318	284	0.0	0.3	3.164	A
2	79	20	318	1285	0.062	79	68	0.0	0.1	3.069	A
3	337	84	46	1176	0.286	335	351	0.0	0.4	4.375	A
4	17	4	335	1174	0.015	17	46	0.0	0.0	3.110	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	381	95	82	1496	0.255	381	340	0.3	0.4	3.366	A
2	94	24	381	1251	0.075	94	82	0.1	0.1	3.199	A
3	402	100	55	1172	0.343	401	420	0.4	0.5	4.783	A
4	21	5	401	1141	0.018	21	55	0.0	0.0	3.213	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	467	117	100	1487	0.314	466	417	0.4	0.5	3.678	A
2	116	29	466	1205	0.096	116	100	0.1	0.1	3.396	A
3	492	123	67	1165	0.422	491	515	0.5	0.7	5.460	A
4	25	6	491	1095	0.023	25	67	0.0	0.0	3.364	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	467	117	100	1486	0.314	467	417	0.5	0.5	3.682	A
2	116	29	467	1205	0.096	116	100	0.1	0.1	3.397	A
3	492	123	67	1165	0.422	492	515	0.7	0.7	5.474	A
4	25	6	492	1095	0.023	25	67	0.0	0.0	3.366	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	381	95	82	1496	0.255	382	341	0.5	0.4	3.372	A
2	94	24	382	1251	0.075	94	82	0.1	0.1	3.201	A
3	402	100	55	1171	0.343	403	421	0.7	0.5	4.801	A
4	21	5	403	1140	0.018	21	55	0.0	0.0	3.218	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	319	80	69	1504	0.212	320	286	0.4	0.3	3.171	A
2	79	20	320	1284	0.062	79	69	0.1	0.1	3.071	A
3	337	84	46	1176	0.286	337	353	0.5	0.4	4.396	A
4	17	4	337	1173	0.015	17	46	0.0	0.0	3.113	A

2033 Full Residential, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.16	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	523	100.000
2		ONE HOUR	✓	162	100.000
3		ONE HOUR	✓	677	100.000
4		ONE HOUR	✓	59	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	498	25
	2	0	0	160	2
	3	483	194	0	0
	4	48	11	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	1	0
	3	1	2	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.41	4.35	0.7	A	480	720
2	0.16	3.75	0.2	A	149	223
3	0.63	8.31	1.7	A	621	932
4	0.07	4.00	0.1	A	54	81

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	394	98	153	1458	0.270	392	397	0.0	0.4	3.439	A
2	122	30	392	1245	0.098	122	153	0.0	0.1	3.235	A
3	510	127	20	1188	0.429	507	494	0.0	0.8	5.324	A
4	44	11	507	1087	0.041	44	20	0.0	0.0	3.451	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	470	118	184	1441	0.326	470	476	0.4	0.5	3.774	A
2	146	36	470	1204	0.121	146	184	0.1	0.1	3.435	A
3	609	152	24	1187	0.513	607	591	0.8	1.1	6.284	A
4	53	13	607	1036	0.051	53	24	0.0	0.1	3.661	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	576	144	225	1419	0.406	575	583	0.5	0.7	4.344	A
2	178	45	575	1147	0.156	178	225	0.1	0.2	3.752	A
3	745	186	30	1184	0.630	743	724	1.1	1.7	8.221	A
4	65	16	743	967	0.067	65	30	0.1	0.1	3.990	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	576	144	226	1418	0.406	576	585	0.7	0.7	4.353	A
2	178	45	576	1147	0.156	178	226	0.2	0.2	3.753	A
3	745	186	30	1184	0.630	745	724	1.7	1.7	8.311	A
4	65	16	745	966	0.067	65	30	0.1	0.1	3.995	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	470	118	185	1440	0.326	471	479	0.7	0.5	3.788	A
2	146	36	471	1203	0.121	146	185	0.2	0.1	3.441	A
3	609	152	24	1186	0.513	611	592	1.7	1.1	6.363	A
4	53	13	611	1034	0.051	53	24	0.1	0.1	3.672	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	394	98	155	1457	0.270	394	401	0.5	0.4	3.455	A
2	122	30	394	1244	0.098	122	155	0.1	0.1	3.239	A
3	510	127	20	1188	0.429	511	496	1.1	0.8	5.391	A
4	44	11	511	1085	0.041	44	20	0.1	0.0	3.461	A

2026 Employment, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.36	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	449	100.000
2		ONE HOUR	✓	145	100.000
3		ONE HOUR	✓	384	100.000
4		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	393	56
	2	0	0	140	5
	3	257	127	0	0
	4	21	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	8	0
	2	0	0	4	0
	3	8	4	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.34	3.97	0.5	A	412	618
2	0.13	3.63	0.2	A	133	200
3	0.36	5.17	0.6	A	352	529
4	0.02	3.26	0.0	A	21	32

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	338	85	97	1488	0.227	337	208	0.0	0.3	3.340	A
2	109	27	337	1275	0.086	109	97	0.0	0.1	3.206	A
3	289	72	46	1176	0.246	288	400	0.0	0.3	4.316	A
4	17	4	288	1198	0.014	17	46	0.0	0.0	3.047	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	404	101	116	1478	0.273	403	250	0.3	0.4	3.582	A
2	130	33	403	1239	0.105	130	116	0.1	0.1	3.370	A
3	345	86	55	1172	0.295	345	479	0.3	0.4	4.642	A
4	21	5	345	1169	0.018	21	55	0.0	0.0	3.133	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	494	124	142	1464	0.338	494	306	0.4	0.5	3.965	A
2	160	40	494	1191	0.134	159	142	0.1	0.2	3.625	A
3	423	106	67	1166	0.363	422	586	0.4	0.6	5.160	A
4	25	6	422	1130	0.022	25	67	0.0	0.0	3.257	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	494	124	142	1464	0.338	494	306	0.5	0.5	3.970	A
2	160	40	494	1190	0.134	160	142	0.2	0.2	3.626	A
3	423	106	67	1165	0.363	423	587	0.6	0.6	5.168	A
4	25	6	423	1130	0.022	25	67	0.0	0.0	3.258	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	404	101	116	1478	0.273	404	250	0.5	0.4	3.589	A
2	130	33	404	1239	0.105	131	116	0.2	0.1	3.373	A
3	345	86	55	1171	0.295	346	480	0.6	0.4	4.653	A
4	21	5	346	1169	0.018	21	55	0.0	0.0	3.137	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	338	85	97	1488	0.227	338	210	0.4	0.3	3.348	A
2	109	27	338	1274	0.086	109	97	0.1	0.1	3.211	A
3	289	72	46	1176	0.246	289	402	0.4	0.3	4.334	A
4	17	4	289	1198	0.014	17	46	0.0	0.0	3.049	A

2026 Employment, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.57	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	313	100.000
2		ONE HOUR	✓	125	100.000
3		ONE HOUR	✓	692	100.000
4		ONE HOUR	✓	59	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	288	25
	2	0	0	123	2
	3	535	157	0	0
	4	48	11	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	4	0
	3	3	3	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.24	3.46	0.3	A	287	431
2	0.11	3.30	0.1	A	115	172
3	0.64	8.78	1.8	A	635	952
4	0.07	4.03	0.1	A	54	81

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	236	59	126	1473	0.160	235	436	0.0	0.2	3.067	A
2	94	24	235	1330	0.071	94	126	0.0	0.1	3.027	A
3	521	130	20	1188	0.438	518	308	0.0	0.8	5.504	A
4	44	11	518	1081	0.041	44	20	0.0	0.0	3.470	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	281	70	151	1459	0.193	281	523	0.2	0.3	3.224	A
2	112	28	281	1305	0.086	112	151	0.1	0.1	3.136	A
3	622	156	24	1187	0.524	621	369	0.8	1.1	6.540	A
4	53	13	621	1029	0.052	53	24	0.0	0.1	3.687	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	345	86	184	1441	0.239	344	640	0.3	0.3	3.463	A
2	138	34	344	1271	0.108	138	184	0.1	0.1	3.300	A
3	762	190	30	1184	0.644	759	452	1.1	1.8	8.672	A
4	65	16	759	959	0.068	65	30	0.1	0.1	4.027	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	345	86	185	1441	0.239	345	642	0.3	0.3	3.464	A
2	138	34	345	1271	0.108	138	185	0.1	0.1	3.300	A
3	762	190	30	1184	0.644	762	453	1.8	1.8	8.781	A
4	65	16	762	957	0.068	65	30	0.1	0.1	4.033	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	281	70	152	1459	0.193	282	526	0.3	0.3	3.229	A
2	112	28	282	1305	0.086	112	152	0.1	0.1	3.137	A
3	622	156	24	1186	0.524	625	370	1.8	1.2	6.635	A
4	53	13	625	1027	0.052	53	24	0.1	0.1	3.698	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	236	59	127	1472	0.160	236	440	0.3	0.2	3.074	A
2	94	24	236	1329	0.071	94	127	0.1	0.1	3.028	A
3	521	130	20	1188	0.438	522	310	1.2	0.8	5.577	A
4	44	11	522	1079	0.041	44	20	0.1	0.0	3.481	A

2026 Phase 1 (Without Link Road), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.46	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.46	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	453	100.000
2		ONE HOUR	✓	142	100.000
3		ONE HOUR	✓	406	100.000
4		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	397	56
	2	0	0	142	0
	3	273	133	0	0
	4	21	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	8	0
	2	0	0	4	0
	3	8	4	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.34	4.00	0.6	A	416	624
2	0.13	3.63	0.2	A	130	195
3	0.38	5.32	0.7	A	373	559
4	0.02	3.29	0.0	A	21	32

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	85	101	1486	0.230	340	220	0.0	0.3	3.356	A
2	107	27	340	1273	0.084	107	101	0.0	0.1	3.208	A
3	306	76	42	1178	0.260	304	404	0.0	0.4	4.388	A
4	17	4	304	1190	0.015	17	42	0.0	0.0	3.068	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	407	102	121	1475	0.276	407	264	0.3	0.4	3.604	A
2	128	32	407	1237	0.103	128	121	0.1	0.1	3.372	A
3	365	91	50	1174	0.311	365	484	0.4	0.5	4.743	A
4	21	5	365	1159	0.018	21	50	0.0	0.0	3.160	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	499	125	148	1460	0.342	498	323	0.4	0.6	3.998	A
2	156	39	498	1188	0.132	156	148	0.1	0.2	3.627	A
3	447	112	62	1168	0.383	446	593	0.5	0.7	5.313	A
4	25	6	446	1118	0.023	25	62	0.0	0.0	3.294	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	499	125	149	1460	0.342	499	324	0.6	0.6	4.004	A
2	156	39	499	1188	0.132	156	149	0.2	0.2	3.628	A
3	447	112	62	1168	0.383	447	593	0.7	0.7	5.323	A
4	25	6	447	1117	0.023	25	62	0.0	0.0	3.295	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	407	102	122	1475	0.276	408	265	0.6	0.4	3.611	A
2	128	32	408	1237	0.103	128	122	0.2	0.1	3.375	A
3	365	91	50	1174	0.311	366	485	0.7	0.5	4.755	A
4	21	5	366	1159	0.018	21	50	0.0	0.0	3.164	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	85	102	1486	0.230	341	222	0.4	0.3	3.365	A
2	107	27	341	1273	0.084	107	102	0.1	0.1	3.214	A
3	306	76	42	1178	0.260	306	406	0.5	0.4	4.408	A
4	17	4	306	1189	0.015	17	42	0.0	0.0	3.071	A

2026 Phase 1 (Without Link Road), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.74	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	330	100.000
2		ONE HOUR	✓	131	100.000
3		ONE HOUR	✓	705	100.000
4		ONE HOUR	✓	59	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	305	25
	2	0	0	129	2
	3	545	160	0	0
	4	48	11	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	4	0
	3	3	3	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.25	3.53	0.4	A	303	454
2	0.11	3.35	0.1	A	120	180
3	0.66	9.09	1.9	A	647	970
4	0.07	4.07	0.1	A	54	81

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	248	62	128	1471	0.169	248	444	0.0	0.2	3.103	A
2	99	25	248	1323	0.075	98	128	0.0	0.1	3.055	A
3	531	133	20	1188	0.447	527	326	0.0	0.8	5.582	A
4	44	11	527	1077	0.041	44	20	0.0	0.0	3.486	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	297	74	153	1458	0.204	296	532	0.2	0.3	3.271	A
2	118	29	296	1297	0.091	118	153	0.1	0.1	3.172	A
3	634	158	24	1187	0.534	632	390	0.8	1.2	6.676	A
4	53	13	632	1023	0.052	53	24	0.0	0.1	3.709	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	363	91	188	1439	0.252	363	651	0.3	0.4	3.530	A
2	144	36	363	1261	0.114	144	188	0.1	0.1	3.349	A
3	776	194	30	1184	0.656	773	477	1.2	1.9	8.964	A
4	65	16	773	952	0.068	65	30	0.1	0.1	4.059	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	363	91	188	1439	0.253	363	653	0.4	0.4	3.531	A
2	144	36	363	1261	0.114	144	188	0.1	0.1	3.350	A
3	776	194	30	1184	0.656	776	478	1.9	1.9	9.087	A
4	65	16	776	950	0.068	65	30	0.1	0.1	4.066	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	297	74	154	1457	0.204	297	535	0.4	0.3	3.274	A
2	118	29	297	1296	0.091	118	154	0.1	0.1	3.174	A
3	634	158	24	1186	0.534	637	391	1.9	1.2	6.779	A
4	53	13	637	1021	0.052	53	24	0.1	0.1	3.718	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	248	62	129	1471	0.169	249	448	0.3	0.2	3.110	A
2	99	25	249	1322	0.075	99	129	0.1	0.1	3.057	A
3	531	133	20	1188	0.447	532	327	1.2	0.8	5.662	A
4	44	11	532	1074	0.041	44	20	0.1	0.0	3.498	A

Appendix J-11

Junctions 10 Output – Chestnut Tree Roundabout

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: 2023-11-03_Chesnut_Tree_Rbt - New Layout.j10
Path: G:\Shared drives\Jobs3000\3062 Barugh Green Barnsley\Junction Models\Chesnut Tree Roundabout
Report generation date: 09/11/2023 12:28:51

»2022 Base, AM
»2022 Base, PM
»2026 Do Minimum, AM
»2026 Do Minimum, PM
»2026 Phase 1 (With Link Road), AM
»2026 Phase 1 (With Link Road), PM
»2033 Do Minimum, AM
»2033 Do Minimum, PM
»2033 Full Development, AM
»2033 Full Development, PM
»2026 Residential Phase 1a, AM
»2026 Residential Phase 1a, PM
»2033 Full Residential, AM
»2033 Full Residential, PM
»2026 Employment, AM
»2026 Employment, PM
»2026 Phase 1 (Without Link Road), AM
»2026 Phase 1 (Without Link Road), PM
»2022 Base + Full Development, AM
»2022 Base + Full Development, PM
»2022 Base + Full Residential, AM
»2022 Base + Full Residential, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2022 Base					
Arm 1	2.4	12.27	0.71	1.5	7.44	0.60
Arm 2	0.2	5.49	0.12	0.7	6.59	0.40
Arm 3	1.7	5.24	0.62	3.0	8.29	0.75
Arm 4	0.8	4.92	0.45	0.4	3.67	0.27
	2026 Do Minimum					
Arm 1	4.2	19.27	0.81	1.9	8.62	0.65
Arm 2	0.2	6.16	0.14	0.7	7.22	0.42
Arm 3	1.9	5.65	0.65	4.3	11.17	0.81
Arm 4	1.0	5.46	0.50	0.4	3.92	0.30
	2026 Phase 1 (With Link Road)					
Arm 1	11.2	53.47	0.94	2.7	12.28	0.73

Arm 2	0.2	7.91	0.17	1.0	9.56	0.49
Arm 3	2.5	6.93	0.71	30.1	62.33	1.00
Arm 4	3.0	10.27	0.75	0.9	4.85	0.48
	2033 Do Minimum					
Arm 1	6.7	29.87	0.88	2.3	10.05	0.70
Arm 2	0.2	6.53	0.16	0.9	8.22	0.47
Arm 3	2.2	6.30	0.69	6.0	15.13	0.86
Arm 4	1.2	6.12	0.54	0.5	4.16	0.32
	2033 Full Development					
Arm 1	54.9	208.98	1.13	5.2	21.87	0.85
Arm 2	0.3	9.16	0.20	1.5	14.20	0.60
Arm 3	3.4	8.71	0.77	127.9	230.92	1.14
Arm 4	7.8	23.68	0.90	1.2	5.48	0.54
	2026 Residential Phase 1a					
Arm 1	4.2	19.38	0.81	2.0	8.94	0.66
Arm 2	0.2	6.09	0.13	0.7	7.41	0.43
Arm 3	1.8	5.50	0.64	4.8	12.23	0.83
Arm 4	1.1	5.51	0.51	0.5	4.00	0.31
	2033 Full Residential					
Arm 1	47.4	181.29	1.10	4.5	18.70	0.82
Arm 2	0.3	8.99	0.20	1.3	12.70	0.57
Arm 3	2.8	7.60	0.74	116.3	202.38	1.13
Arm 4	6.5	20.05	0.87	1.1	5.11	0.51
	2026 Employment					
Arm 1	4.6	21.20	0.83	2.0	9.28	0.67
Arm 2	0.2	6.34	0.14	0.8	7.69	0.44
Arm 3	2.2	6.26	0.68	4.7	12.05	0.83
Arm 4	1.1	5.80	0.52	0.5	4.16	0.33
	2026 Phase 1 (Without Link Road)					
Arm 1	5.0	23.27	0.84	2.1	9.66	0.68
Arm 2	0.2	6.50	0.14	0.8	7.91	0.44
Arm 3	2.2	6.35	0.69	5.2	13.28	0.84
Arm 4	1.2	6.08	0.54	0.6	4.25	0.35
	2022 Base + Full Development					
Arm 1	7.2	38.19	0.89	2.8	12.76	0.74
Arm 2	0.2	7.84	0.17	1.0	10.01	0.50
Arm 3	2.4	6.80	0.70	37.2	74.34	1.02
Arm 4	3.8	12.22	0.79	1.0	4.88	0.50
	2022 Base + Full Residential					
Arm 1	6.3	33.08	0.88	2.5	11.56	0.72
Arm 2	0.2	7.59	0.16	0.9	9.23	0.48
Arm 3	2.1	6.12	0.67	30.4	63.39	1.00
Arm 4	3.4	11.18	0.77	0.9	4.61	0.47

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	Chestnut Tree Roundabout
Location	
Site number	
Date	06/11/2023
Version	
Status	(new file)
Identifier	
Client	Strata Sterling Barnsley West Ltd
Jobnumber	
Enumerator	Fore Consulting Limited
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	08:00	09:30	15	✓
D2	2022 Base	PM	ONE HOUR	17:00	18:30	15	✓
D3	2026 Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓
D4	2026 Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D5	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D7	2033 Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓
D8	2033 Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D9	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓
D10	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓
D11	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓
D12	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓
D13	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓
D14	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓
D15	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓
D16	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓
D17	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓
D18	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓
D19	2022 Base + Full Development	AM	ONE HOUR	08:00	09:30	15	✓
D20	2022 Base + Full Development	PM	ONE HOUR	17:00	18:30	15	✓
D21	2022 Base + Full Residential	AM	ONE HOUR	08:00	09:30	15	✓
D22	2022 Base + Full Residential	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.13	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	untitled		
3	untitled		
4	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.06	6.03	18.9	13.5	32.3	27.3		
2	4.41	5.42	11.1	15.0	35.4	24.4		
3	3.27	7.28	28.7	52.3	38.7	24.5		
4	3.85	8.03	41.2	10.4	38.6	38.9		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.611	1504
2	0.627	1577
3	0.704	1922
4	0.674	1960

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	662	100.000
2		ONE HOUR	✓	94	100.000
3		ONE HOUR	✓	1062	100.000
4		ONE HOUR	✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	37	600	24
	2	8	0	64	22
	3	586	166	24	286
	4	47	81	435	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	13
	2	33	0	7	15
	3	3	2	0	5
	4	4	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.71	12.27	2.4	B	607	911
2	0.12	5.49	0.2	A	86	129
3	0.62	5.24	1.7	A	975	1462
4	0.45	4.92	0.8	A	518	776

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	498	125	530	1180	0.422	495	482	0.0	0.7	5.362	A
2	71	18	813	1068	0.066	70	213	0.0	0.1	3.993	A
3	800	200	42	1892	0.422	797	841	0.0	0.8	3.385	A
4	425	106	589	1563	0.272	423	250	0.0	0.4	3.260	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	595	149	635	1116	0.533	593	576	0.7	1.2	7.028	A
2	85	21	973	967	0.087	84	255	0.1	0.1	4.512	A
3	955	239	50	1887	0.506	954	1008	0.8	1.0	3.981	A
4	507	127	705	1485	0.341	506	299	0.4	0.5	3.801	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	729	182	777	1030	0.708	724	705	1.2	2.4	11.876	B
2	103	26	1189	832	0.124	103	312	0.1	0.2	5.465	A
3	1169	292	61	1879	0.622	1167	1231	1.0	1.7	5.204	A
4	621	155	862	1379	0.450	620	366	0.5	0.8	4.895	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	729	182	778	1029	0.709	729	707	2.4	2.4	12.267	B
2	103	26	1194	828	0.125	103	313	0.2	0.2	5.493	A
3	1169	292	62	1879	0.622	1169	1236	1.7	1.7	5.242	A
4	621	155	864	1378	0.451	621	367	0.8	0.8	4.918	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	595	149	637	1115	0.534	600	579	2.4	1.2	7.227	A
2	85	21	981	962	0.088	85	256	0.2	0.1	4.539	A
3	955	239	51	1886	0.506	957	1015	1.7	1.1	4.014	A
4	507	127	708	1483	0.342	508	300	0.8	0.5	3.821	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	498	125	533	1179	0.423	500	484	1.2	0.8	5.447	A
2	71	18	819	1064	0.067	71	214	0.1	0.1	4.012	A
3	800	200	42	1892	0.423	801	848	1.1	0.8	3.410	A
4	425	106	592	1561	0.272	425	251	0.5	0.4	3.280	A

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.22	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.22	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022 Base	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	670	100.000
2		ONE HOUR	✓	331	100.000
3		ONE HOUR	✓	1188	100.000
4		ONE HOUR	✓	345	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	28	577	63
	2	41	1	176	113
	3	605	67	23	493
	4	27	27	290	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	5
	2	3	0	1	1
	3	1	7	0	3
	4	8	17	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.60	7.44	1.5	A	615	922
2	0.40	6.59	0.7	A	304	456
3	0.75	8.29	3.0	A	1090	1635
4	0.27	3.67	0.4	A	317	475

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	504	126	307	1317	0.383	502	506	0.0	0.6	4.477	A
2	249	62	717	1128	0.221	248	92	0.0	0.3	4.136	A
3	894	224	166	1805	0.495	890	799	0.0	1.0	4.002	A
4	260	65	554	1587	0.164	259	502	0.0	0.2	2.851	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	602	151	367	1280	0.471	601	606	0.6	0.9	5.382	A
2	298	74	858	1039	0.286	297	110	0.3	0.4	4.907	A
3	1068	267	198	1782	0.599	1066	957	1.0	1.5	5.118	A
4	310	78	663	1513	0.205	310	601	0.2	0.3	3.147	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	738	184	449	1230	0.600	735	740	0.9	1.5	7.367	A
2	364	91	1050	919	0.397	363	135	0.4	0.7	6.546	A
3	1308	327	243	1751	0.747	1302	1171	1.5	2.9	8.092	A
4	380	95	810	1414	0.269	379	735	0.3	0.4	3.658	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	738	184	450	1229	0.600	738	743	1.5	1.5	7.441	A
2	364	91	1053	917	0.397	364	135	0.7	0.7	6.590	A
3	1308	327	243	1751	0.747	1308	1174	2.9	3.0	8.292	A
4	380	95	814	1412	0.269	380	738	0.4	0.4	3.669	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	602	151	369	1279	0.471	605	610	1.5	0.9	5.443	A
2	298	74	862	1037	0.287	299	111	0.7	0.4	4.945	A
3	1068	267	199	1782	0.599	1074	961	3.0	1.5	5.233	A
4	310	78	668	1510	0.205	311	605	0.4	0.3	3.158	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	504	126	308	1316	0.383	506	509	0.9	0.6	4.522	A
2	249	62	721	1125	0.221	250	93	0.4	0.3	4.166	A
3	894	224	167	1805	0.496	897	804	1.5	1.0	4.058	A
4	260	65	558	1584	0.164	260	506	0.3	0.2	2.859	A

2026 Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.55	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	738	100.000
2		ONE HOUR	✓	94	100.000
3		ONE HOUR	✓	1107	100.000
4		ONE HOUR	✓	616	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	38	671	28
	2	8	0	64	22
	3	616	167	24	300
	4	59	82	474	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	11
	2	33	0	7	15
	3	3	2	0	4
	4	4	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.81	19.27	4.2	C	677	1016
2	0.14	6.16	0.2	A	86	129
3	0.65	5.65	1.9	A	1016	1524
4	0.50	5.46	1.0	A	565	848

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	556	139	561	1161	0.478	552	513	0.0	0.9	6.010	A
2	71	18	898	1014	0.070	70	215	0.0	0.1	4.218	A
3	833	208	45	1890	0.441	830	923	0.0	0.8	3.489	A
4	464	116	612	1548	0.300	462	263	0.0	0.4	3.398	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	663	166	672	1094	0.607	661	614	0.9	1.5	8.463	A
2	85	21	1075	903	0.094	84	258	0.1	0.1	4.863	A
3	995	249	54	1884	0.528	994	1106	0.8	1.1	4.161	A
4	554	138	733	1466	0.378	553	315	0.4	0.6	4.043	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	813	203	822	1002	0.811	803	751	1.5	4.0	17.678	C
2	103	26	1310	756	0.137	103	315	0.1	0.2	6.099	A
3	1219	305	66	1876	0.650	1216	1347	1.1	1.9	5.598	A
4	678	170	896	1356	0.500	677	385	0.6	1.0	5.432	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	813	203	824	1001	0.812	812	753	4.0	4.2	19.266	C
2	103	26	1319	750	0.138	103	316	0.2	0.2	6.159	A
3	1219	305	66	1875	0.650	1219	1357	1.9	1.9	5.646	A
4	678	170	898	1355	0.501	678	386	1.0	1.0	5.463	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	663	166	674	1092	0.607	674	617	4.2	1.6	9.010	A
2	85	21	1089	895	0.094	85	259	0.2	0.1	4.921	A
3	995	249	54	1884	0.528	998	1119	1.9	1.2	4.204	A
4	554	138	736	1464	0.378	555	317	1.0	0.6	4.075	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	556	139	564	1160	0.479	558	516	1.6	1.0	6.157	A
2	71	18	906	1009	0.070	71	217	0.1	0.1	4.245	A
3	833	208	45	1890	0.441	835	931	1.2	0.8	3.522	A
4	464	116	615	1545	0.300	465	265	0.6	0.4	3.421	A

2026 Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.02	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	720	100.000
2		ONE HOUR	✓	332	100.000
3		ONE HOUR	✓	1287	100.000
4		ONE HOUR	✓	368	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	28	617	73
	2	41	1	177	113
	3	672	68	23	524
	4	32	27	308	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	4
	2	3	0	1	1
	3	1	7	0	2
	4	6	17	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.65	8.62	1.9	A	661	991
2	0.42	7.22	0.7	A	305	457
3	0.81	11.17	4.3	B	1181	1771
4	0.30	3.92	0.4	A	338	507

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	542	136	321	1308	0.414	539	560	0.0	0.7	4.738	A
2	250	62	767	1096	0.228	249	93	0.0	0.3	4.294	A
3	969	242	173	1800	0.538	964	843	0.0	1.2	4.356	A
4	277	69	605	1553	0.178	276	533	0.0	0.2	2.936	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	647	162	384	1269	0.510	646	670	0.7	1.0	5.852	A
2	298	75	919	1001	0.298	298	111	0.3	0.4	5.180	A
3	1157	289	207	1776	0.651	1154	1010	1.2	1.9	5.860	A
4	331	83	724	1472	0.225	331	638	0.2	0.3	3.284	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	793	198	470	1217	0.651	790	817	1.0	1.8	8.486	A
2	366	91	1124	873	0.419	364	136	0.4	0.7	7.153	A
3	1417	354	253	1743	0.813	1408	1235	1.9	4.2	10.627	B
4	405	101	883	1365	0.297	405	778	0.3	0.4	3.903	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	793	198	471	1216	0.652	793	822	1.8	1.9	8.623	A
2	366	91	1127	871	0.420	366	136	0.7	0.7	7.216	A
3	1417	354	254	1743	0.813	1417	1239	4.2	4.3	11.171	B
4	405	101	888	1362	0.298	405	783	0.4	0.4	3.920	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	647	162	386	1268	0.510	650	677	1.9	1.1	5.947	A
2	298	75	924	998	0.299	300	112	0.7	0.4	5.228	A
3	1157	289	209	1775	0.652	1166	1015	4.3	1.9	6.103	A
4	331	83	731	1467	0.225	331	644	0.4	0.3	3.304	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	542	136	323	1307	0.415	543	564	1.1	0.7	4.797	A
2	250	62	773	1093	0.229	250	94	0.4	0.3	4.328	A
3	969	242	174	1799	0.539	972	849	1.9	1.2	4.442	A
4	277	69	609	1549	0.179	277	537	0.3	0.2	2.950	A

2026 Phase 1 (With Link Road), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	19.42	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.42	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Phase 1 (With Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	729	100.000
2		ONE HOUR	✓	94	100.000
3		ONE HOUR	✓	1182	100.000
4		ONE HOUR	✓	981	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	38	612	78
	2	8	0	64	22
	3	499	167	24	492
	4	201	82	697	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	5
	2	33	0	7	15
	3	3	2	0	4
	4	3	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.94	53.47	11.2	F	669	1003
2	0.17	7.91	0.2	A	86	129
3	0.71	6.93	2.5	A	1085	1627
4	0.75	10.27	3.0	B	900	1350

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	549	137	728	1060	0.518	545	531	0.0	1.1	7.093	A
2	71	18	1057	915	0.077	70	215	0.0	0.1	4.716	A
3	890	222	82	1864	0.477	886	1045	0.0	0.9	3.786	A
4	739	185	524	1607	0.460	735	444	0.0	0.9	4.254	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	655	164	871	972	0.674	652	636	1.1	2.0	11.363	B
2	85	21	1265	784	0.108	84	257	0.1	0.1	5.690	A
3	1063	266	98	1853	0.574	1061	1251	0.9	1.4	4.682	A
4	882	220	627	1537	0.574	880	532	0.9	1.4	5.647	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	803	201	1063	854	0.939	775	777	2.0	9.1	37.463	E
2	103	26	1525	621	0.167	103	313	0.1	0.2	7.681	A
3	1301	325	118	1839	0.708	1297	1510	1.4	2.4	6.803	A
4	1080	270	767	1443	0.748	1074	648	1.4	3.0	9.915	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	803	201	1069	851	0.943	794	780	9.1	11.2	53.474	F
2	103	26	1547	607	0.170	103	316	0.2	0.2	7.909	A
3	1301	325	120	1837	0.708	1301	1531	2.4	2.5	6.926	A
4	1080	270	770	1442	0.749	1080	652	3.0	3.0	10.274	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	655	164	879	967	0.678	691	641	11.2	2.2	14.955	B
2	85	21	1309	757	0.112	85	261	0.2	0.1	5.933	A
3	1063	266	103	1849	0.575	1067	1291	2.5	1.4	4.772	A
4	882	220	631	1535	0.575	888	539	3.0	1.4	5.814	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	549	137	733	1056	0.520	553	535	2.2	1.1	7.391	A
2	71	18	1070	907	0.078	71	217	0.1	0.1	4.768	A
3	890	222	83	1863	0.478	892	1057	1.4	1.0	3.833	A
4	739	185	527	1605	0.460	741	448	1.4	0.9	4.319	A

2026 Phase 1 (With Link Road), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	34.54	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	34.54	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Phase 1 (With Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	737	100.000
2		ONE HOUR	✓	332	100.000
3		ONE HOUR	✓	1566	100.000
4		ONE HOUR	✓	634	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	28	606	101
	2	41	1	177	113
	3	541	68	23	934
	4	135	27	471	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	3
	2	3	0	1	1
	3	0	7	0	2
	4	4	17	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.73	12.28	2.7	B	676	1014
2	0.49	9.56	1.0	A	305	457
3	1.00	62.33	30.1	F	1437	2155
4	0.48	4.85	0.9	A	582	873

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	555	139	443	1233	0.450	552	538	0.0	0.8	5.334	A
2	250	62	902	1012	0.247	249	93	0.0	0.3	4.767	A
3	1179	295	194	1785	0.660	1171	957	0.0	1.9	5.877	A
4	477	119	506	1619	0.295	476	860	0.0	0.4	3.261	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	663	166	530	1180	0.561	661	643	0.8	1.3	7.009	A
2	298	75	1080	900	0.332	298	111	0.3	0.5	6.044	A
3	1408	352	232	1758	0.801	1400	1146	1.9	3.9	9.982	A
4	570	142	605	1553	0.367	569	1028	0.4	0.6	3.796	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	811	203	646	1110	0.731	806	767	1.3	2.6	11.824	B
2	366	91	1318	751	0.487	364	133	0.5	0.9	9.377	A
3	1724	431	284	1722	1.001	1655	1399	3.9	21.1	36.719	E
4	698	175	716	1477	0.472	697	1223	0.6	0.9	4.776	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	811	203	649	1108	0.732	811	779	2.6	2.7	12.285	B
2	366	91	1325	747	0.490	365	135	0.9	1.0	9.558	A
3	1724	431	285	1721	1.002	1688	1405	21.1	30.1	62.334	F
4	698	175	730	1468	0.475	698	1244	0.9	0.9	4.848	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	663	166	538	1175	0.564	668	682	2.7	1.3	7.278	A
2	298	75	1090	894	0.334	300	116	1.0	0.5	6.159	A
3	1408	352	234	1757	0.801	1511	1156	30.1	4.4	20.325	C
4	570	142	649	1522	0.374	571	1096	0.9	0.6	3.930	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	555	139	446	1232	0.450	557	545	1.3	0.8	5.430	A
2	250	62	909	1007	0.248	251	94	0.5	0.3	4.822	A
3	1179	295	196	1784	0.661	1188	964	4.4	2.0	6.226	A
4	477	119	513	1614	0.296	478	871	0.6	0.4	3.290	A

2033 Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	13.06	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.06	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2033 Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	778	100.000
2		ONE HOUR	✓	100	100.000
3		ONE HOUR	✓	1172	100.000
4		ONE HOUR	✓	650	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	40	708	29
	2	8	0	68	24
	3	652	177	26	317
	4	62	86	501	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	2	2	10
	2	22	0	5	12
	3	2	1	0	3
	4	3	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.88	29.87	6.7	D	714	1071
2	0.16	6.53	0.2	A	92	138
3	0.69	6.30	2.2	A	1075	1613
4	0.54	6.12	1.2	A	596	895

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	146	593	1142	0.513	581	542	0.0	1.1	6.524	A
2	75	19	948	983	0.077	75	227	0.0	0.1	4.273	A
3	882	221	47	1889	0.467	879	975	0.0	0.9	3.627	A
4	489	122	648	1524	0.321	487	278	0.0	0.5	3.559	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	699	175	710	1070	0.653	696	649	1.1	1.9	9.754	A
2	90	22	1134	866	0.104	90	272	0.1	0.1	5.000	A
3	1054	263	56	1882	0.560	1052	1168	0.9	1.3	4.418	A
4	584	146	776	1437	0.407	583	333	0.5	0.7	4.320	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	857	214	868	974	0.880	840	794	1.9	6.1	24.926	C
2	110	28	1376	714	0.154	110	332	0.1	0.2	6.417	A
3	1290	323	69	1874	0.689	1287	1418	1.3	2.2	6.220	A
4	716	179	949	1321	0.542	714	407	0.7	1.2	6.063	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	857	214	871	972	0.881	854	796	6.1	6.7	29.866	D
2	110	28	1392	705	0.156	110	333	0.2	0.2	6.525	A
3	1290	323	69	1873	0.689	1290	1432	2.2	2.2	6.301	A
4	716	179	951	1319	0.543	716	408	1.2	1.2	6.119	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	699	175	714	1068	0.655	718	652	6.7	2.0	11.045	B
2	90	22	1157	852	0.106	90	274	0.2	0.1	5.099	A
3	1054	263	57	1881	0.560	1057	1190	2.2	1.3	4.477	A
4	584	146	779	1435	0.407	586	335	1.2	0.7	4.364	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	146	597	1140	0.514	589	545	2.0	1.1	6.732	A
2	75	19	957	977	0.077	75	229	0.1	0.1	4.304	A
3	882	221	48	1888	0.467	884	985	1.3	0.9	3.666	A
4	489	122	652	1521	0.322	490	280	0.7	0.5	3.588	A

2033 Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	11.44	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.44	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2033 Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	760	100.000
2		ONE HOUR	✓	352	100.000
3		ONE HOUR	✓	1360	100.000
4		ONE HOUR	✓	389	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	30	652	76
	2	43	1	188	120
	3	709	72	25	554
	4	34	28	326	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	6	1	4
	2	2	0	1	1
	3	0	4	0	2
	4	6	13	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.70	10.05	2.3	B	697	1046
2	0.47	8.22	0.9	A	323	485
3	0.86	15.13	6.0	C	1248	1872
4	0.32	4.16	0.5	A	357	535

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	572	143	340	1297	0.441	569	590	0.0	0.8	4.997	A
2	265	66	811	1069	0.248	264	98	0.0	0.3	4.512	A
3	1024	256	182	1794	0.571	1019	892	0.0	1.3	4.660	A
4	293	73	638	1530	0.191	292	562	0.0	0.2	3.016	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	683	171	407	1256	0.544	682	706	0.8	1.2	6.345	A
2	316	79	971	969	0.327	316	117	0.3	0.5	5.572	A
3	1223	306	218	1768	0.691	1219	1069	1.3	2.2	6.576	A
4	350	87	764	1445	0.242	349	673	0.2	0.3	3.413	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	837	209	497	1200	0.697	833	860	1.2	2.3	9.815	A
2	388	97	1186	833	0.465	386	143	0.5	0.9	8.109	A
3	1497	374	266	1734	0.863	1483	1306	2.2	5.7	13.765	B
4	428	107	929	1334	0.321	428	820	0.3	0.5	4.126	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	837	209	499	1200	0.698	837	867	2.3	2.3	10.054	B
2	388	97	1191	831	0.467	388	144	0.9	0.9	8.216	A
3	1497	374	268	1734	0.864	1496	1311	5.7	6.0	15.130	C
4	428	107	937	1328	0.322	428	826	0.5	0.5	4.155	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	683	171	409	1254	0.545	687	716	2.3	1.2	6.493	A
2	316	79	978	964	0.328	318	119	0.9	0.5	5.643	A
3	1223	306	220	1767	0.692	1238	1076	6.0	2.3	7.047	A
4	350	87	775	1438	0.243	350	682	0.5	0.3	3.440	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	572	143	342	1296	0.442	574	595	1.2	0.8	5.075	A
2	265	66	817	1065	0.249	266	99	0.5	0.3	4.556	A
3	1024	256	183	1793	0.571	1028	899	2.3	1.4	4.776	A
4	293	73	644	1526	0.192	293	567	0.3	0.2	3.036	A

2033 Full Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	61.12	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	61.12	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2033 Full Development	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	778	100.000
2		ONE HOUR	✓	100	100.000
3		ONE HOUR	✓	1281	100.000
4		ONE HOUR	✓	1140	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	40	650	87
	2	8	0	68	24
	3	540	177	26	538
	4	234	86	819	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	5
	2	33	0	7	15
	3	3	2	0	4
	4	2	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1.13	208.98	54.9	F	714	1071
2	0.20	9.16	0.3	A	92	138
3	0.77	8.71	3.4	A	1175	1763
4	0.90	23.68	7.8	C	1046	1569

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	146	830	997	0.588	580	587	0.0	1.4	8.728	A
2	75	19	1184	835	0.090	75	227	0.0	0.1	5.233	A
3	964	241	90	1858	0.519	960	1168	0.0	1.1	4.117	A
4	858	215	564	1580	0.543	853	487	0.0	1.2	5.046	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	699	175	994	897	0.780	692	702	1.4	3.3	17.336	C
2	90	22	1414	691	0.130	90	271	0.1	0.2	6.621	A
3	1152	288	108	1846	0.624	1149	1396	1.1	1.7	5.314	A
4	1025	256	675	1505	0.681	1021	582	1.2	2.1	7.564	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	857	214	1204	768	1.115	751	855	3.3	29.8	95.009	F
2	110	28	1629	556	0.198	110	326	0.2	0.3	8.912	A
3	1410	353	121	1837	0.768	1404	1618	1.7	3.3	8.462	A
4	1255	314	824	1405	0.894	1235	701	2.1	7.1	19.826	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	857	214	1219	759	1.128	757	861	29.8	54.9	208.975	F
2	110	28	1647	545	0.202	110	328	0.3	0.3	9.161	A
3	1410	353	122	1836	0.768	1410	1635	3.3	3.4	8.709	A
4	1255	314	828	1402	0.895	1252	704	7.1	7.8	23.679	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	699	175	1016	884	0.792	867	711	54.9	12.9	146.394	F
2	90	22	1599	574	0.156	90	284	0.3	0.2	8.224	A
3	1152	288	128	1832	0.629	1158	1562	3.4	1.8	5.562	A
4	1025	256	680	1502	0.682	1047	606	7.8	2.3	8.491	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	146	839	992	0.591	631	592	12.9	1.5	11.502	B
2	75	19	1239	801	0.094	76	231	0.2	0.1	5.494	A
3	964	241	96	1854	0.520	967	1218	1.8	1.1	4.200	A
4	858	215	568	1578	0.544	862	496	2.3	1.2	5.193	A

2033 Full Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	118.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	118.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2033 Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	814	100.000
2		ONE HOUR	✓	352	100.000
3		ONE HOUR	✓	1745	100.000
4		ONE HOUR	✓	731	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	30	646	136
	2	43	1	188	120
	3	581	72	25	1067
	4	155	28	547	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	2
	2	3	0	1	1
	3	0	7	0	2
	4	3	17	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.85	21.87	5.2	C	747	1120
2	0.60	14.20	1.5	B	323	485
3	1.14	230.92	127.9	F	1601	2402
4	0.54	5.48	1.2	A	671	1006

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	613	153	505	1196	0.513	609	583	0.0	1.1	6.177	A
2	265	66	1016	940	0.282	263	98	0.0	0.4	5.371	A
3	1314	328	227	1762	0.745	1302	1053	0.0	2.9	7.759	A
4	550	138	540	1596	0.345	548	989	0.0	0.5	3.547	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	732	183	604	1135	0.645	729	695	1.1	1.8	8.918	A
2	316	79	1216	815	0.388	315	117	0.4	0.6	7.285	A
3	1569	392	271	1731	0.906	1548	1260	2.9	8.1	18.187	C
4	657	164	643	1527	0.430	656	1177	0.5	0.8	4.273	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	896	224	727	1060	0.846	884	778	1.8	4.9	19.506	C
2	388	97	1477	651	0.595	384	134	0.6	1.4	13.510	B
3	1921	480	330	1689	1.137	1678	1532	8.1	69.0	91.743	F
4	805	201	702	1487	0.541	803	1306	0.8	1.2	5.434	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	896	224	729	1059	0.846	895	781	4.9	5.2	21.870	C
2	388	97	1489	643	0.602	387	134	1.4	1.5	14.203	B
3	1921	480	333	1687	1.139	1686	1543	69.0	127.9	215.437	F
4	805	201	706	1485	0.542	805	1313	1.2	1.2	5.479	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	732	183	615	1128	0.649	745	751	5.2	1.9	9.826	A
2	316	79	1236	803	0.394	320	124	1.5	0.7	7.598	A
3	1569	392	276	1727	0.908	1714	1279	127.9	91.6	230.919	F
4	657	164	708	1483	0.443	659	1282	1.2	0.8	4.527	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	613	153	528	1182	0.519	616	706	1.9	1.1	6.491	A
2	265	66	1031	931	0.285	266	113	0.7	0.4	5.487	A
3	1314	328	229	1761	0.746	1666	1067	91.6	3.4	85.991	F
4	550	138	682	1500	0.367	551	1213	0.8	0.6	3.928	A

2026 Residential Phase 1a, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.53	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2026 Residential Phase 1a	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	733	100.000
2		ONE HOUR	✓	85	100.000
3		ONE HOUR	✓	1093	100.000
4		ONE HOUR	✓	631	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	36	667	29
	2	6	0	59	20
	3	604	167	24	298
	4	64	82	484	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	10
	2	33	0	7	15
	3	3	2	0	4
	4	3	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.81	19.38	4.2	C	673	1009
2	0.13	6.09	0.2	A	78	117
3	0.64	5.50	1.8	A	1003	1504
4	0.51	5.51	1.1	A	579	869

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	552	138	568	1157	0.477	548	506	0.0	0.9	6.017	A
2	64	16	903	1011	0.063	64	214	0.0	0.1	4.191	A
3	823	206	43	1892	0.435	820	924	0.0	0.8	3.450	A
4	475	119	601	1555	0.306	473	261	0.0	0.4	3.409	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	659	165	681	1088	0.605	656	606	0.9	1.5	8.481	A
2	76	19	1081	899	0.085	76	256	0.1	0.1	4.825	A
3	983	246	51	1886	0.521	981	1106	0.8	1.1	4.094	A
4	567	142	720	1475	0.385	567	312	0.4	0.6	4.062	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	807	202	833	995	0.811	797	741	1.5	4.0	17.776	C
2	94	23	1317	751	0.125	93	313	0.1	0.2	6.034	A
3	1203	301	62	1878	0.641	1201	1348	1.1	1.8	5.452	A
4	695	174	881	1366	0.508	693	382	0.6	1.0	5.472	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	807	202	835	994	0.812	806	743	4.0	4.2	19.383	C
2	94	23	1327	745	0.126	94	314	0.2	0.2	6.093	A
3	1203	301	63	1878	0.641	1203	1358	1.8	1.8	5.500	A
4	695	174	883	1365	0.509	695	383	1.0	1.1	5.509	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	659	165	683	1087	0.606	669	609	4.2	1.6	9.031	A
2	76	19	1095	891	0.086	77	257	0.2	0.1	4.880	A
3	983	246	52	1886	0.521	985	1120	1.8	1.1	4.133	A
4	567	142	723	1473	0.385	569	314	1.1	0.6	4.094	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	552	138	572	1155	0.478	555	509	1.6	0.9	6.161	A
2	64	16	911	1006	0.064	64	215	0.1	0.1	4.218	A
3	823	206	43	1892	0.435	824	932	1.1	0.8	3.481	A
4	475	119	605	1553	0.306	476	262	0.6	0.5	3.431	A

2026 Residential Phase 1a, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2026 Residential Phase 1a	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	726	100.000
2		ONE HOUR	✓	332	100.000
3		ONE HOUR	✓	1309	100.000
4		ONE HOUR	✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	28	617	79
	2	41	1	177	113
	3	672	68	23	546
	4	36	27	321	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	3
	2	3	0	1	1
	3	1	7	0	2
	4	6	17	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.66	8.94	2.0	A	666	999
2	0.43	7.41	0.7	A	305	457
3	0.83	12.23	4.8	B	1201	1802
4	0.31	4.00	0.5	A	353	530

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	547	137	331	1302	0.420	544	563	0.0	0.7	4.798	A
2	250	62	782	1087	0.230	249	93	0.0	0.3	4.340	A
3	985	246	178	1797	0.548	981	853	0.0	1.2	4.458	A
4	290	72	605	1553	0.187	289	554	0.0	0.2	2.965	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	653	163	396	1262	0.517	651	673	0.7	1.1	5.964	A
2	298	75	936	990	0.301	298	111	0.3	0.4	5.262	A
3	1177	294	213	1772	0.664	1174	1021	1.2	2.0	6.088	A
4	346	87	724	1472	0.235	346	663	0.2	0.3	3.327	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	799	200	484	1208	0.662	796	821	1.1	1.9	8.784	A
2	366	91	1144	860	0.425	364	136	0.4	0.7	7.338	A
3	1441	360	260	1739	0.829	1431	1249	2.0	4.6	11.508	B
4	424	106	882	1366	0.310	423	808	0.3	0.5	3.976	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	799	200	485	1208	0.662	799	827	1.9	2.0	8.938	A
2	366	91	1148	857	0.426	366	136	0.7	0.7	7.408	A
3	1441	360	261	1738	0.829	1441	1253	4.6	4.8	12.229	B
4	424	106	888	1362	0.311	424	813	0.5	0.5	3.997	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	653	163	398	1261	0.517	656	681	2.0	1.1	6.071	A
2	298	75	942	987	0.302	300	112	0.7	0.4	5.311	A
3	1177	294	214	1771	0.664	1188	1027	4.8	2.1	6.383	A
4	346	87	732	1467	0.236	347	670	0.5	0.3	3.350	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	547	137	333	1301	0.420	548	567	1.1	0.7	4.859	A
2	250	62	787	1084	0.231	250	94	0.4	0.3	4.375	A
3	985	246	179	1796	0.549	989	859	2.1	1.2	4.554	A
4	290	72	609	1549	0.187	290	558	0.3	0.2	2.979	A

2033 Full Residential, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	53.97	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	53.97	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Full Residential	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	778	100.000
2		ONE HOUR	✓	100	100.000
3		ONE HOUR	✓	1225	100.000
4		ONE HOUR	✓	1113	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	40	650	87
	2	8	0	68	24
	3	540	177	26	482
	4	234	86	792	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	5
	2	33	0	7	15
	3	3	2	0	3
	4	2	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1.10	181.29	47.4	F	714	1071
2	0.20	8.99	0.3	A	92	138
3	0.74	7.60	2.8	A	1124	1686
4	0.87	20.05	6.5	C	1021	1532

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	146	810	1009	0.580	580	587	0.0	1.4	8.489	A
2	75	19	1164	848	0.089	75	227	0.0	0.1	5.148	A
3	922	231	90	1858	0.496	918	1148	0.0	1.0	3.920	A
4	838	209	564	1580	0.530	833	445	0.0	1.1	4.880	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	699	175	970	912	0.767	692	702	1.4	3.1	16.308	C
2	90	22	1391	705	0.127	90	271	0.1	0.2	6.464	A
3	1101	275	108	1846	0.597	1099	1372	1.0	1.5	4.943	A
4	1001	250	675	1505	0.665	997	532	1.1	2.0	7.168	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	857	214	1178	785	1.092	763	856	3.1	26.5	85.271	F
2	110	28	1614	565	0.195	110	327	0.2	0.3	8.728	A
3	1349	337	123	1836	0.735	1344	1601	1.5	2.8	7.444	A
4	1225	306	825	1404	0.873	1209	641	2.0	6.0	17.498	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	857	214	1190	777	1.102	773	862	26.5	47.4	181.286	F
2	110	28	1634	553	0.199	110	329	0.3	0.3	8.986	A
3	1349	337	124	1835	0.735	1349	1620	2.8	2.8	7.603	A
4	1225	306	828	1402	0.874	1224	645	6.0	6.5	20.054	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	699	175	987	901	0.776	870	710	47.4	4.8	109.762	F
2	90	22	1574	590	0.152	90	283	0.3	0.2	7.963	A
3	1101	275	128	1832	0.601	1106	1536	2.8	1.6	5.136	A
4	1001	250	679	1502	0.666	1018	555	6.5	2.1	7.837	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	146	818	1004	0.583	599	591	4.8	1.5	9.382	A
2	75	19	1188	833	0.090	76	229	0.2	0.1	5.260	A
3	922	231	93	1857	0.497	924	1171	1.6	1.0	3.980	A
4	838	209	568	1578	0.531	842	450	2.1	1.2	5.006	A

2033 Full Residential, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	104.06	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	104.06	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Full Residential	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	814	100.000
2		ONE HOUR	✓	352	100.000
3		ONE HOUR	✓	1724	100.000
4		ONE HOUR	✓	686	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	30	646	136
	2	43	1	188	120
	3	581	72	25	1046
	4	155	28	502	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	2
	2	3	0	1	1
	3	0	7	0	1
	4	3	17	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.82	18.70	4.5	C	747	1120
2	0.57	12.70	1.3	B	323	485
3	1.13	202.38	116.3	F	1582	2373
4	0.51	5.11	1.1	A	629	944

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	613	153	471	1216	0.504	609	584	0.0	1.0	5.971	A
2	265	66	982	961	0.276	263	98	0.0	0.4	5.209	A
3	1298	324	227	1762	0.737	1287	1019	0.0	2.7	7.480	A
4	516	129	541	1596	0.324	515	973	0.0	0.5	3.415	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	732	183	564	1160	0.631	729	696	1.0	1.7	8.423	A
2	316	79	1176	840	0.377	316	117	0.4	0.6	6.938	A
3	1550	387	272	1731	0.896	1531	1220	2.7	7.3	16.837	C
4	617	154	643	1526	0.404	616	1159	0.5	0.7	4.059	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	896	224	679	1089	0.823	886	784	1.7	4.3	17.137	C
2	388	97	1430	680	0.570	385	134	0.6	1.3	12.212	B
3	1898	475	331	1689	1.124	1675	1485	7.3	63.1	84.897	F
4	755	189	709	1482	0.510	754	1297	0.7	1.1	5.068	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	896	224	681	1088	0.823	895	788	4.3	4.5	18.698	C
2	388	97	1441	674	0.575	387	135	1.3	1.3	12.697	B
3	1898	475	333	1687	1.125	1685	1495	63.1	116.3	197.211	F
4	755	189	713	1479	0.511	755	1305	1.1	1.1	5.109	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	732	183	576	1152	0.635	742	758	4.5	1.8	9.121	A
2	316	79	1193	829	0.382	319	125	1.3	0.6	7.183	A
3	1550	387	276	1728	0.897	1713	1237	116.3	75.5	202.385	F
4	617	154	715	1478	0.417	618	1273	1.1	0.7	4.307	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	613	153	490	1205	0.509	616	686	1.8	1.1	6.233	A
2	265	66	995	953	0.278	266	111	0.6	0.4	5.311	A
3	1298	324	229	1761	0.737	1588	1032	75.5	3.1	55.026	F
4	516	129	659	1516	0.341	517	1158	0.7	0.5	3.709	A

2026 Employment, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.33	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.33	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2026 Employment	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	738	100.000
2		ONE HOUR	✓	94	100.000
3		ONE HOUR	✓	1162	100.000
4		ONE HOUR	✓	643	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	38	671	28
	2	8	0	64	22
	3	616	167	24	355
	4	59	82	501	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	11
	2	33	0	7	15
	3	3	2	0	6
	4	4	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.83	21.20	4.6	C	677	1016
2	0.14	6.34	0.2	A	86	129
3	0.68	6.26	2.2	A	1066	1599
4	0.52	5.80	1.1	A	590	885

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	556	139	581	1149	0.484	552	513	0.0	0.9	6.132	A
2	71	18	918	1002	0.071	70	215	0.0	0.1	4.275	A
3	875	219	45	1890	0.463	871	943	0.0	0.9	3.651	A
4	484	121	612	1548	0.313	482	304	0.0	0.5	3.515	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	663	166	696	1079	0.615	661	614	0.9	1.6	8.756	A
2	85	21	1099	888	0.095	84	258	0.1	0.1	4.955	A
3	1045	261	54	1884	0.554	1043	1130	0.9	1.3	4.430	A
4	578	145	732	1466	0.394	577	364	0.5	0.7	4.216	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	813	203	851	984	0.826	802	751	1.6	4.3	19.140	C
2	103	26	1338	738	0.140	103	315	0.1	0.2	6.268	A
3	1279	320	66	1876	0.682	1276	1376	1.3	2.2	6.184	A
4	708	177	896	1356	0.522	706	445	0.7	1.1	5.754	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	813	203	853	983	0.827	812	753	4.3	4.6	21.202	C
2	103	26	1349	732	0.141	103	316	0.2	0.2	6.340	A
3	1279	320	66	1875	0.682	1279	1386	2.2	2.2	6.258	A
4	708	177	898	1355	0.523	708	447	1.1	1.1	5.801	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	663	166	699	1077	0.616	675	617	4.6	1.7	9.414	A
2	85	21	1115	878	0.096	85	259	0.2	0.1	5.019	A
3	1045	261	54	1884	0.555	1048	1145	2.2	1.3	4.488	A
4	578	145	736	1464	0.395	580	367	1.1	0.7	4.253	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	556	139	584	1147	0.484	558	516	1.7	1.0	6.289	A
2	71	18	926	997	0.071	71	217	0.1	0.1	4.305	A
3	875	219	45	1890	0.463	876	952	1.3	0.9	3.687	A
4	484	121	615	1545	0.313	485	306	0.7	0.5	3.540	A

2026 Employment, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.64	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2026 Employment	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	720	100.000
2		ONE HOUR	✓	332	100.000
3		ONE HOUR	✓	1308	100.000
4		ONE HOUR	✓	413	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	28	617	73
	2	41	1	177	113
	3	672	68	23	545
	4	32	27	353	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	4
	2	3	0	1	1
	3	1	7	0	3
	4	6	17	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.67	9.28	2.0	A	661	991
2	0.44	7.69	0.8	A	305	457
3	0.83	12.05	4.7	B	1200	1800
4	0.33	4.16	0.5	A	379	568

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	542	136	355	1287	0.421	539	560	0.0	0.7	4.867	A
2	250	62	801	1075	0.232	249	93	0.0	0.3	4.404	A
3	985	246	173	1800	0.547	980	877	0.0	1.2	4.456	A
4	311	78	605	1553	0.200	310	548	0.0	0.3	3.035	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	647	162	425	1245	0.520	646	670	0.7	1.1	6.089	A
2	298	75	959	976	0.306	298	111	0.3	0.4	5.371	A
3	1176	294	207	1776	0.662	1173	1050	1.2	2.0	6.064	A
4	371	93	724	1472	0.252	371	656	0.3	0.4	3.428	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	793	198	519	1187	0.668	789	817	1.1	2.0	9.108	A
2	366	91	1173	842	0.434	364	136	0.4	0.8	7.609	A
3	1440	360	253	1743	0.826	1430	1284	2.0	4.5	11.363	B
4	455	114	882	1365	0.333	454	801	0.4	0.5	4.141	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	793	198	521	1186	0.668	793	822	2.0	2.0	9.283	A
2	366	91	1177	839	0.435	366	136	0.8	0.8	7.688	A
3	1440	360	254	1743	0.826	1440	1288	4.5	4.7	12.052	B
4	455	114	888	1362	0.334	455	806	0.5	0.5	4.164	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	647	162	427	1244	0.520	651	677	2.0	1.1	6.203	A
2	298	75	965	972	0.307	300	112	0.8	0.5	5.429	A
3	1176	294	209	1775	0.662	1186	1056	4.7	2.0	6.352	A
4	371	93	732	1467	0.253	372	663	0.5	0.4	3.452	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	542	136	357	1286	0.421	544	564	1.1	0.7	4.932	A
2	250	62	807	1072	0.233	251	94	0.5	0.3	4.441	A
3	985	246	174	1799	0.547	988	883	2.0	1.2	4.550	A
4	311	78	609	1549	0.201	311	553	0.4	0.3	3.050	A

2026 Phase 1 (Without Link Road), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.97	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.97	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2026 Phase 1 (Without Link Road)	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	740	100.000
2		ONE HOUR	✓	94	100.000
3		ONE HOUR	✓	1168	100.000
4		ONE HOUR	✓	670	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	38	671	30
	2	8	0	64	22
	3	616	167	24	361
	4	65	82	522	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	10
	2	33	0	7	15
	3	3	2	0	6
	4	3	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.84	23.27	5.0	C	679	1019
2	0.14	6.50	0.2	A	86	129
3	0.69	6.35	2.2	A	1072	1608
4	0.54	6.08	1.2	A	615	922

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	557	139	597	1140	0.489	553	517	0.0	1.0	6.244	A
2	71	18	935	991	0.071	70	215	0.0	0.1	4.325	A
3	879	220	46	1889	0.465	876	959	0.0	0.9	3.672	A
4	504	126	612	1548	0.326	502	310	0.0	0.5	3.581	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	665	166	715	1068	0.623	663	619	1.0	1.6	9.033	A
2	85	21	1120	875	0.097	84	258	0.1	0.1	5.035	A
3	1050	263	56	1883	0.558	1048	1148	0.9	1.3	4.466	A
4	602	151	732	1467	0.411	601	372	0.5	0.7	4.330	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	815	204	874	970	0.840	803	758	1.6	4.7	20.641	C
2	103	26	1362	723	0.143	103	315	0.1	0.2	6.419	A
3	1286	321	68	1874	0.686	1282	1398	1.3	2.2	6.265	A
4	738	184	896	1356	0.544	736	454	0.7	1.2	6.021	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	815	204	876	969	0.841	813	760	4.7	5.0	23.275	C
2	103	26	1374	716	0.145	103	316	0.2	0.2	6.503	A
3	1286	321	68	1874	0.686	1286	1409	2.2	2.2	6.346	A
4	738	184	898	1355	0.545	738	456	1.2	1.2	6.076	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	665	166	718	1065	0.624	678	622	5.0	1.7	9.820	A
2	85	21	1137	865	0.098	85	259	0.2	0.1	5.109	A
3	1050	263	56	1882	0.558	1054	1165	2.2	1.3	4.526	A
4	602	151	736	1464	0.411	604	374	1.2	0.7	4.371	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	557	139	600	1137	0.490	560	520	1.7	1.0	6.414	A
2	71	18	944	986	0.072	71	217	0.1	0.1	4.356	A
3	879	220	47	1889	0.466	881	968	1.3	0.9	3.711	A
4	504	126	615	1545	0.326	505	312	0.7	0.5	3.607	A

2026 Phase 1 (Without Link Road), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.34	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.34	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2026 Phase 1 (Without Link Road)	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	726	100.000
2		ONE HOUR	✓	332	100.000
3		ONE HOUR	✓	1330	100.000
4		ONE HOUR	✓	430	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	28	617	79
	2	41	1	177	113
	3	672	68	23	567
	4	36	27	366	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	4
	2	3	0	1	1
	3	1	7	0	3
	4	6	17	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.68	9.66	2.1	A	666	999
2	0.44	7.91	0.8	A	305	457
3	0.84	13.28	5.2	B	1220	1831
4	0.35	4.25	0.6	A	395	592

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	547	137	365	1282	0.427	544	563	0.0	0.7	4.935	A
2	250	62	815	1066	0.234	249	93	0.0	0.3	4.452	A
3	1001	250	178	1797	0.557	996	886	0.0	1.3	4.564	A
4	324	81	604	1553	0.208	323	569	0.0	0.3	3.066	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	653	163	436	1238	0.527	651	673	0.7	1.1	6.218	A
2	298	75	976	965	0.309	298	111	0.3	0.4	5.457	A
3	1196	299	213	1772	0.675	1192	1062	1.3	2.1	6.306	A
4	387	97	724	1472	0.263	386	681	0.3	0.4	3.476	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	799	200	534	1178	0.678	796	821	1.1	2.1	9.458	A
2	366	91	1193	829	0.441	364	136	0.4	0.8	7.817	A
3	1464	366	260	1739	0.842	1453	1298	2.1	5.0	12.356	B
4	473	118	882	1366	0.347	473	831	0.4	0.6	4.223	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	799	200	535	1177	0.679	799	826	2.1	2.1	9.660	A
2	366	91	1198	826	0.442	366	136	0.8	0.8	7.907	A
3	1464	366	261	1738	0.842	1464	1302	5.0	5.2	13.281	B
4	473	118	888	1362	0.348	473	836	0.6	0.6	4.250	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	653	163	438	1236	0.528	656	682	2.1	1.2	6.348	A
2	298	75	983	961	0.310	300	112	0.8	0.5	5.522	A
3	1196	299	214	1771	0.675	1208	1068	5.2	2.2	6.664	A
4	387	97	733	1466	0.264	387	689	0.6	0.4	3.500	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	547	137	366	1280	0.427	548	567	1.2	0.8	5.005	A
2	250	62	821	1063	0.235	251	94	0.5	0.3	4.492	A
3	1001	250	179	1796	0.558	1005	893	2.2	1.3	4.666	A
4	324	81	610	1549	0.209	324	574	0.4	0.3	3.082	A

2022 Base + Full Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	15.72	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.72	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2022 Base + Full Development	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	662	100.000
2		ONE HOUR	✓	94	100.000
3		ONE HOUR	✓	1170	100.000
4		ONE HOUR	✓	1054	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	37	542	82
	2	8	0	64	22
	3	474	166	24	506
	4	219	81	753	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	5
	2	33	0	7	15
	3	3	2	0	4
	4	2	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.89	38.19	7.2	E	607	911
2	0.17	7.84	0.2	A	86	129
3	0.70	6.80	2.4	A	1074	1610
4	0.79	12.22	3.8	B	967	1451

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	498	125	768	1035	0.482	495	526	0.0	0.9	6.779	A
2	71	18	1050	919	0.077	70	213	0.0	0.1	4.691	A
3	881	220	85	1862	0.473	877	1035	0.0	0.9	3.760	A
4	794	198	505	1620	0.490	790	458	0.0	1.0	4.425	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	595	149	919	942	0.631	592	630	0.9	1.7	10.429	B
2	85	21	1257	789	0.107	84	255	0.1	0.1	5.647	A
3	1052	263	102	1850	0.569	1050	1239	0.9	1.3	4.636	A
4	948	237	604	1553	0.610	945	548	1.0	1.6	6.048	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	729	182	1121	819	0.890	711	769	1.7	6.3	29.975	D
2	103	26	1521	624	0.166	103	310	0.1	0.2	7.649	A
3	1288	322	123	1835	0.702	1284	1501	1.3	2.4	6.690	A
4	1160	290	739	1462	0.794	1152	669	1.6	3.7	11.583	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	729	182	1128	815	0.895	725	773	6.3	7.2	38.185	E
2	103	26	1541	611	0.169	103	312	0.2	0.2	7.845	A
3	1288	322	125	1834	0.702	1288	1519	2.4	2.4	6.803	A
4	1160	290	741	1461	0.794	1160	672	3.7	3.8	12.222	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	595	149	929	936	0.635	617	635	7.2	1.8	12.255	B
2	85	21	1288	770	0.110	85	258	0.2	0.1	5.817	A
3	1052	263	105	1848	0.569	1056	1267	2.4	1.4	4.716	A
4	948	237	607	1551	0.611	956	554	3.8	1.6	6.301	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	498	125	774	1031	0.483	502	530	1.8	1.0	7.008	A
2	71	18	1061	912	0.078	71	214	0.1	0.1	4.737	A
3	881	220	86	1861	0.473	883	1046	1.4	0.9	3.803	A
4	794	198	508	1618	0.490	796	461	1.6	1.0	4.507	A

2022 Base + Full Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	40.08	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	40.08	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2022 Base + Full Development	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	724	100.000
2		ONE HOUR	✓	331	100.000
3		ONE HOUR	✓	1573	100.000
4		ONE HOUR	✓	687	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	28	571	123
	2	41	1	176	113
	3	477	67	23	1006
	4	148	27	511	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	2
	2	3	0	1	1
	3	0	7	0	2
	4	3	17	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.74	12.76	2.8	B	664	997
2	0.50	10.01	1.0	B	304	456
3	1.02	74.34	37.2	F	1443	2165
4	0.50	4.88	1.0	A	630	946

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	545	136	472	1216	0.448	542	500	0.0	0.8	5.393	A
2	249	62	922	999	0.249	248	92	0.0	0.3	4.841	A
3	1184	296	210	1774	0.668	1176	960	0.0	2.0	6.040	A
4	517	129	457	1652	0.313	515	930	0.0	0.5	3.271	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	651	163	565	1159	0.562	649	598	0.8	1.3	7.136	A
2	298	74	1104	885	0.336	297	110	0.3	0.5	6.188	A
3	1414	354	252	1744	0.811	1406	1149	2.0	4.1	10.533	B
4	618	154	546	1592	0.388	617	1112	0.5	0.7	3.819	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	797	199	688	1084	0.735	792	710	1.3	2.7	12.252	B
2	364	91	1348	732	0.498	363	132	0.5	1.0	9.805	A
3	1732	433	308	1705	1.016	1650	1403	4.1	24.6	41.218	E
4	756	189	643	1527	0.495	755	1315	0.7	1.0	4.817	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	797	199	691	1082	0.737	797	720	2.7	2.8	12.761	B
2	364	91	1354	728	0.500	364	133	1.0	1.0	10.013	B
3	1732	433	309	1704	1.016	1682	1409	24.6	37.2	74.342	F
4	756	189	655	1519	0.498	756	1336	1.0	1.0	4.884	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	651	163	575	1153	0.564	657	640	2.8	1.3	7.435	A
2	298	74	1115	878	0.339	299	116	1.0	0.5	6.316	A
3	1414	354	254	1743	0.811	1544	1160	37.2	4.8	27.871	D
4	618	154	596	1558	0.396	619	1202	1.0	0.7	3.972	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	545	136	476	1214	0.449	547	506	1.3	0.8	5.493	A
2	249	62	929	995	0.251	250	93	0.5	0.3	4.898	A
3	1184	296	212	1772	0.668	1195	967	4.8	2.1	6.443	A
4	517	129	464	1647	0.314	518	943	0.7	0.5	3.300	A

2022 Base + Full Residential, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	14.12	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.12	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2022 Base + Full Residential	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	662	100.000
2		ONE HOUR	✓	94	100.000
3		ONE HOUR	✓	1115	100.000
4		ONE HOUR	✓	1028	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	37	542	82
	2	8	0	64	22
	3	474	166	24	451
	4	219	81	727	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	2	5
	2	33	0	7	15
	3	3	2	0	4
	4	2	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.88	33.08	6.3	D	607	911
2	0.16	7.59	0.2	A	86	129
3	0.67	6.12	2.1	A	1023	1535
4	0.77	11.18	3.4	B	943	1415

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	498	125	749	1047	0.476	495	526	0.0	0.9	6.635	A
2	71	18	1031	931	0.076	70	213	0.0	0.1	4.625	A
3	839	210	85	1862	0.451	836	1016	0.0	0.8	3.609	A
4	774	193	505	1620	0.478	770	417	0.0	0.9	4.325	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	595	149	896	957	0.622	592	630	0.9	1.6	10.038	B
2	85	21	1234	804	0.105	84	255	0.1	0.1	5.534	A
3	1002	251	102	1850	0.542	1001	1216	0.8	1.2	4.367	A
4	924	231	604	1553	0.595	922	499	0.9	1.5	5.828	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	729	182	1094	836	0.872	713	770	1.6	5.6	27.084	D
2	103	26	1496	639	0.162	103	311	0.1	0.2	7.421	A
3	1228	307	123	1835	0.669	1224	1476	1.2	2.0	6.048	A
4	1132	283	739	1462	0.774	1124	609	1.5	3.3	10.700	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	729	182	1100	832	0.876	726	773	5.6	6.3	33.084	D
2	103	26	1513	628	0.165	103	312	0.2	0.2	7.586	A
3	1228	307	125	1834	0.669	1228	1492	2.0	2.1	6.125	A
4	1132	283	741	1461	0.775	1131	612	3.3	3.4	11.177	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	595	149	905	951	0.626	613	634	6.3	1.8	11.447	B
2	85	21	1260	787	0.107	85	257	0.2	0.1	5.674	A
3	1002	251	105	1848	0.542	1006	1240	2.1	1.2	4.428	A
4	924	231	607	1551	0.596	932	504	3.4	1.5	6.033	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	498	125	754	1043	0.478	502	530	1.8	0.9	6.845	A
2	71	18	1041	924	0.077	71	214	0.1	0.1	4.667	A
3	839	210	86	1861	0.451	841	1026	1.2	0.9	3.645	A
4	774	193	508	1618	0.478	776	420	1.5	0.9	4.398	A

2022 Base + Full Residential, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	34.71	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	34.71	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2022 Base + Full Residential	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	724	100.000
2		ONE HOUR	✓	331	100.000
3		ONE HOUR	✓	1552	100.000
4		ONE HOUR	✓	642	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	2	28	571	123
	2	41	1	176	113
	3	477	67	23	985
	4	148	27	466	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	1	2
	2	3	0	1	1
	3	0	7	0	2
	4	3	17	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.72	11.56	2.5	B	664	997
2	0.48	9.23	0.9	A	304	456
3	1.00	63.39	30.4	F	1424	2136
4	0.47	4.61	0.9	A	589	884

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	545	136	439	1236	0.441	542	500	0.0	0.8	5.234	A
2	249	62	888	1020	0.244	248	92	0.0	0.3	4.711	A
3	1168	292	210	1774	0.659	1161	926	0.0	1.9	5.892	A
4	483	121	457	1652	0.293	482	914	0.0	0.4	3.180	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	651	163	525	1183	0.550	649	598	0.8	1.2	6.811	A
2	298	74	1064	910	0.327	297	110	0.3	0.5	5.936	A
3	1395	349	252	1744	0.800	1388	1109	1.9	3.8	10.028	B
4	577	144	546	1592	0.363	577	1093	0.4	0.6	3.668	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	797	199	639	1114	0.716	792	714	1.2	2.4	11.185	B
2	364	91	1299	763	0.478	363	132	0.5	0.9	9.072	A
3	1709	427	308	1705	1.002	1639	1354	3.8	21.2	37.174	E
4	707	177	647	1524	0.464	706	1300	0.6	0.9	4.547	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	797	199	642	1112	0.717	797	724	2.4	2.5	11.564	B
2	364	91	1305	759	0.480	364	134	0.9	0.9	9.231	A
3	1709	427	309	1704	1.003	1672	1360	21.2	30.4	63.393	F
4	707	177	659	1516	0.466	707	1322	0.9	0.9	4.606	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	651	163	533	1179	0.552	656	633	2.5	1.3	7.049	A
2	298	74	1073	904	0.329	299	115	0.9	0.5	6.041	A
3	1395	349	254	1743	0.801	1499	1118	30.4	4.4	20.686	C
4	577	144	587	1564	0.369	578	1166	0.9	0.6	3.783	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	545	136	442	1234	0.442	547	506	1.3	0.8	5.323	A
2	249	62	895	1016	0.245	250	93	0.5	0.3	4.761	A
3	1168	292	212	1772	0.659	1178	933	4.4	2.0	6.245	A
4	483	121	464	1648	0.293	484	927	0.6	0.4	3.203	A

Appendix J-12

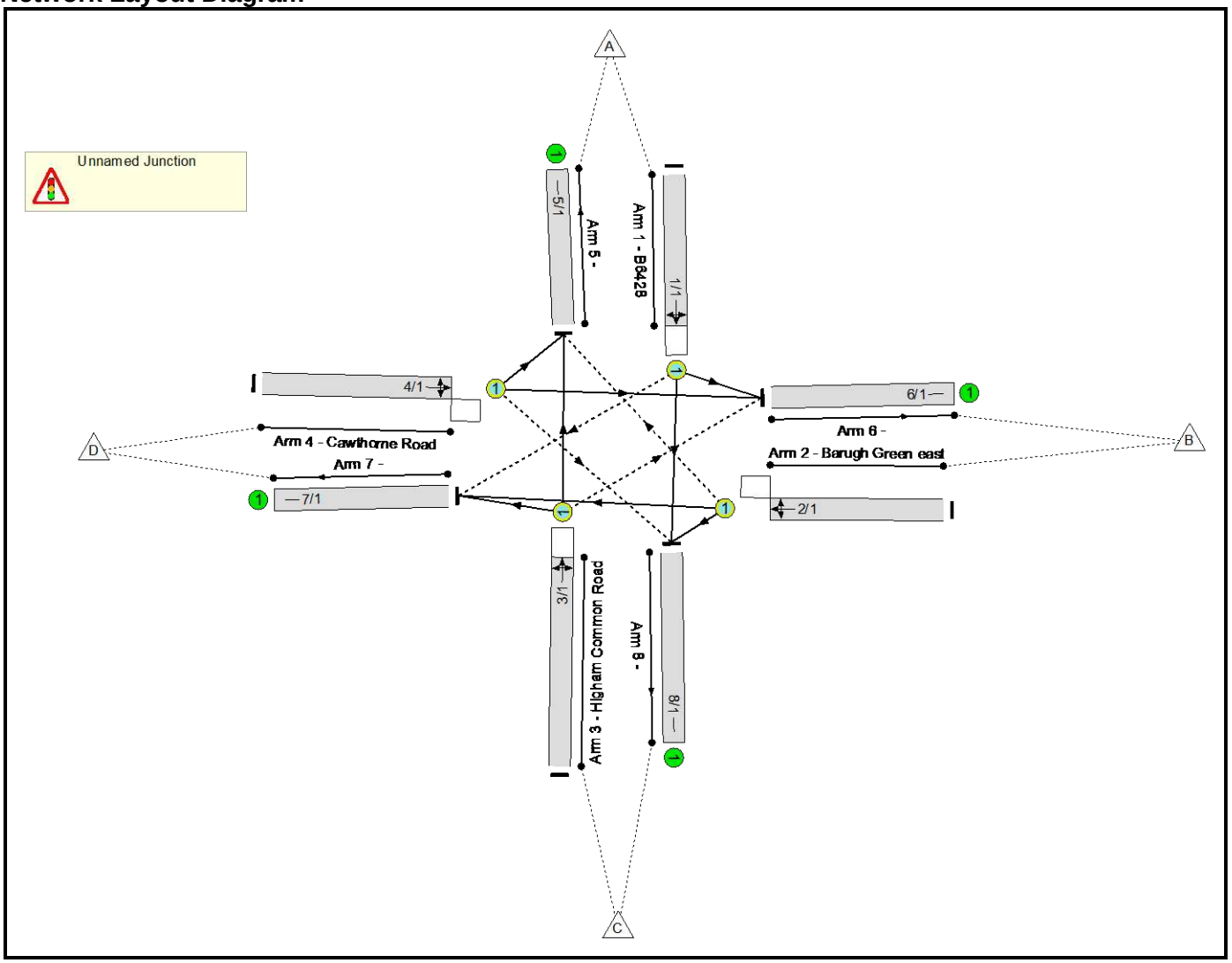
LinSig Output – Barugh Green Crossroads

Full Input Data And Results

User and Project Details

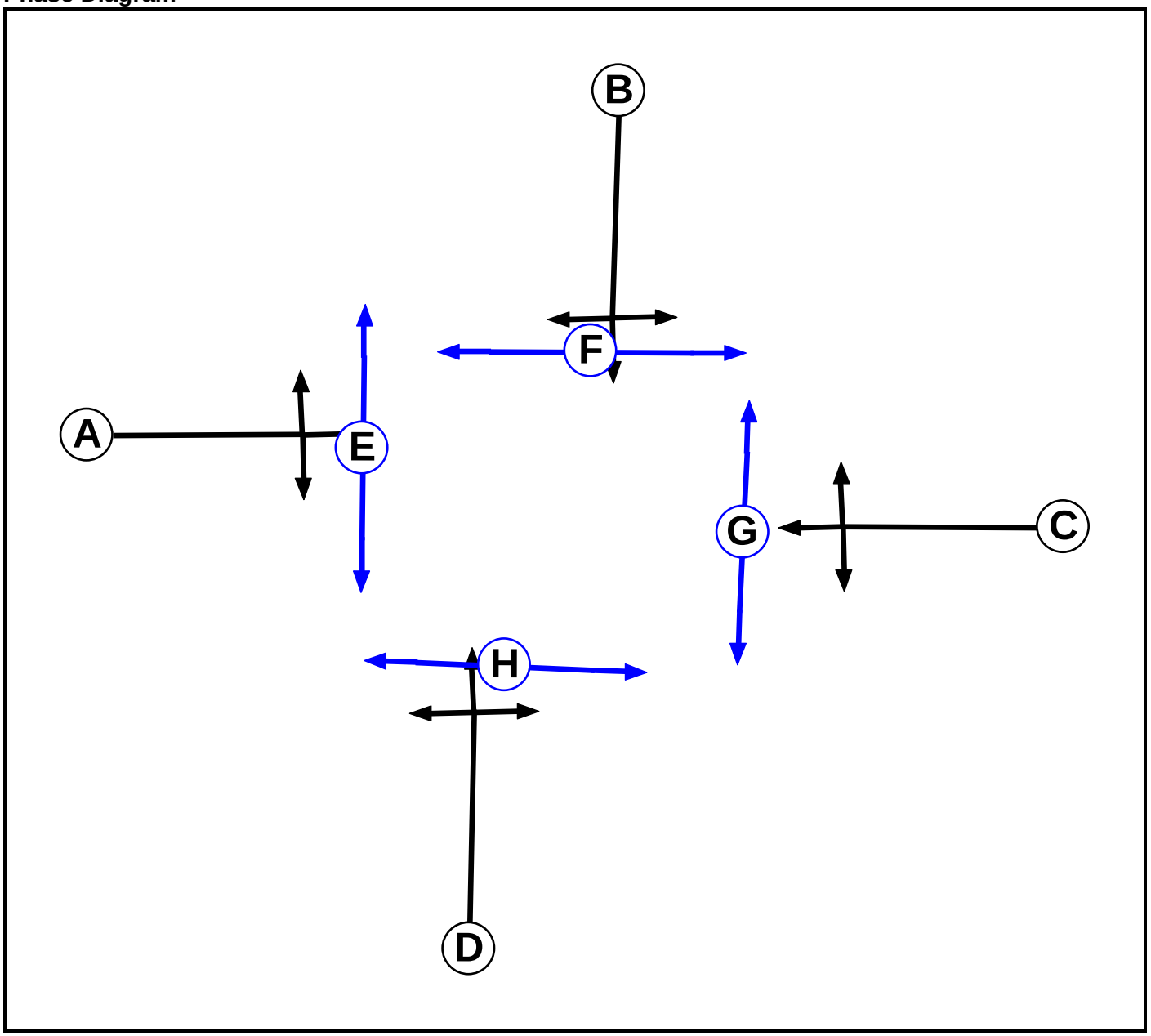
Project:	
Title:	
Location:	
Additional detail:	
File name:	2021-12-08_Barugh Green Crossroads.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		5	5
F	Pedestrian		5	5
G	Pedestrian		5	5
H	Pedestrian		5	5

Full Input Data And Results

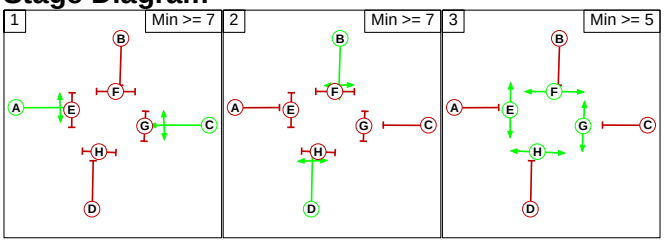
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H
A		8	-	8	8	8	8	8
B	8		8	-	8	8	8	8
C	-	8		8	8	8	8	8
D	8	-	8		8	8	8	8
E	0	0	0	0		-	-	-
F	0	0	0	0	-		-	-
G	0	0	0	0	-	-		-
H	0	0	0	0	-	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

From Stage \ To Stage	1	2	3
1		8	8
2	8		8
3	2	2	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
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)**
1/1 (B6428)	7/1 (Right)	1439	0	3/1	1.09	To 5/1 (Ahead) To 7/1 (Left)	2.00	-	0.50	2	2.00
2/1 (Barugh Green east)	5/1 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 6/1 (Ahead)	2.00	2.00	0.50	2	2.00
3/1 (Higham Common Road)	6/1 (Right)	1439	0	1/1	1.09	To 6/1 (Left) To 8/1 (Ahead)	2.00	-	0.50	2	2.00
4/1 (Cawthorne Road)	8/1 (Right)	1439	0	2/1	1.09	To 7/1 (Ahead) To 8/1 (Left)	2.00	2.00	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
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 (B6428)	O	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left	9.00
											Arm 7 Right	Inf
											Arm 8 Ahead	17.00
2/1 (Barugh Green east)	O	C	2	3	60.0	Geom	-	4.30	0.00	Y	Arm 5 Right	15.00
											Arm 7 Ahead	Inf
											Arm 8 Left	12.00
3/1 (Higham Common Road)	O	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	15.00
											Arm 7 Left	10.00
4/1 (Cawthorne Road)	O	A	2	3	60.0	Geom	-	4.50	0.00	Y	Arm 5 Left	10.00
											Arm 6 Ahead	Inf
											Arm 8 Right	16.00
5/1	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	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base AM'	08:00	09:00	01:00	
2: '2022 Base PM'	17:00	18:00	01:00	
3: '2026 Do Min AM'	08:00	09:00	01:00	
4: '2026 Do Min PM'	17:00	18:00	01:00	
5: '2026 P1 (With Link Road) AM'	08:00	09:00	01:00	
6: '2026 P1 (With Link Road) PM'	17:00	18:00	01:00	
7: '2033 Do Min AM'	08:00	09:00	01:00	
8: '2033 Do Min PM'	17:00	18:00	01:00	
9: '2033 Full Dev AM'	08:00	09:00	01:00	
10: '2033 Full Dev PM'	17:00	18:00	01:00	
11: '2026 Resi P1A AM'	08:00	09:00	01:00	
12: '2026 Resi P1A PM'	17:00	18:00	01:00	
13: '2033 Full Resi AM'	08:00	09:00	01:00	
14: '2033 Full Resi PM'	17:00	18:00	01:00	
15: '2026 Emp AM'	08:00	09:00	01:00	
16: '2026 Emp PM'	17:00	18:00	01:00	
17: '2026 P1 (Without Link Road) AM'	08:00	09:00	01:00	
18: '2026 P1 (Without Link Road) PM'	17:00	18:00	01:00	

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

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	60	225	83	368
	B	34	0	62	157	253
	C	212	90	0	23	325
	D	111	353	30	0	494
	Tot.	357	503	317	263	1440

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2022 Base AM
Junction: Unnamed Junction	
1/1	368
2/1	253
3/1	325
4/1	494
5/1	357
6/1	503
7/1	263
8/1	317

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	16.3 %	1818	1818
				Arm 7 Right	Inf	22.6 %		
				Arm 8 Ahead	17.00	61.1 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	13.4 %	1959	1959
				Arm 7 Ahead	Inf	62.1 %		
				Arm 8 Left	12.00	24.5 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	65.2 %	1844	1844
				Arm 6 Right	15.00	27.7 %		
				Arm 7 Left	10.00	7.1 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	22.5 %	1987	1987
				Arm 6 Ahead	Inf	71.5 %		
				Arm 8 Right	16.00	6.1 %		
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

Full Input Data And Results

Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	60	165	106	331
	B	156	0	67	383	606
	C	210	65	0	30	305
	D	107	154	25	0	286
	Tot.	473	279	257	519	1528

Traffic Lane Flows

Lane	Scenario 2: 2022 Base PM
Junction: Unnamed Junction	
1/1	331
2/1	606
3/1	305
4/1	286
5/1	473
6/1	279
7/1	519
8/1	257

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	18.1 %	1829	1829
				Arm 7 Right	Inf	32.0 %		
				Arm 8 Ahead	17.00	49.8 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	25.7 %	1967	1967
				Arm 7 Ahead	Inf	63.2 %		
				Arm 8 Left	12.00	11.1 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	68.9 %	1848	1848
				Arm 6 Right	15.00	21.3 %		
				Arm 7 Left	10.00	9.8 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	37.4 %	1940	1940
				Arm 6 Ahead	Inf	53.8 %		
				Arm 8 Right	16.00	8.7 %		
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: '2026 Do Min AM' (FG3: '2026 Do Min AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	60	231	97	388
	B	35	0	63	162	260
	C	215	90	0	24	329
	D	117	357	30	0	504
	Tot.	367	507	324	283	1481

Traffic Lane Flows

Lane	Scenario 3: 2026 Do Min AM
Junction: Unnamed Junction	
1/1	388
2/1	260
3/1	329
4/1	504
5/1	367
6/1	507
7/1	283
8/1	324

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	15.5 %	1822	1822
				Arm 7 Right	Inf	25.0 %		
				Arm 8 Ahead	17.00	59.5 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	13.5 %	1959	1959
				Arm 7 Ahead	Inf	62.3 %		
				Arm 8 Left	12.00	24.2 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	65.3 %	1844	1844
				Arm 6 Right	15.00	27.4 %		
				Arm 7 Left	10.00	7.3 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	23.2 %	1985	1985
				Arm 6 Ahead	Inf	70.8 %		
				Arm 8 Right	16.00	6.0 %		
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 4: '2026 Do Min PM' (FG4: '2026 Do Min PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	60	169	115	344
	B	157	0	67	387	611
	C	217	66	0	30	313
	D	123	158	25	0	306
	Tot.	497	284	261	532	1574

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2026 Do Min PM
Junction: Unnamed Junction	
1/1	344
2/1	611
3/1	313
4/1	306
5/1	497
6/1	284
7/1	532
8/1	261

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	17.4 %	1832	1832
				Arm 7 Right	Inf	33.4 %		
				Arm 8 Ahead	17.00	49.1 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	25.7 %	1967	1967
				Arm 7 Ahead	Inf	63.3 %		
				Arm 8 Left	12.00	11.0 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	69.3 %	1849	1849
				Arm 6 Right	15.00	21.1 %		
				Arm 7 Left	10.00	9.6 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	40.2 %	1934	1934
				Arm 6 Ahead	Inf	51.6 %		
				Arm 8 Right	16.00	8.2 %		
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

Full Input Data And Results

Scenario 5: '2026 P1 (With Link Road) AM' (FG5: '2026 P1 (With Link Road) AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	199	125	105	429
	B	112	0	68	181	361
	C	162	120	0	8	290
	D	132	358	23	0	513
	Tot.	406	677	216	294	1593

Traffic Lane Flows

Lane	Scenario 5: 2026 P1 (With Link Road) AM
Junction: Unnamed Junction	
1/1	429
2/1	361
3/1	290
4/1	513
5/1	406
6/1	677
7/1	294
8/1	216

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	46.4 %	1781	1781
				Arm 7 Right	Inf	24.5 %		
				Arm 8 Ahead	17.00	29.1 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	31.0 %	1939	1939
				Arm 7 Ahead	Inf	50.1 %		
				Arm 8 Left	12.00	18.8 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	55.9 %	1832	1832
				Arm 6 Right	15.00	41.4 %		
				Arm 7 Left	10.00	2.8 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	25.7 %	1980	1980
				Arm 6 Ahead	Inf	69.8 %		
				Arm 8 Right	16.00	4.5 %		
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: '2026 P1 (With Link Road) PM' (FG6: '2026 P1 (With Link Road) PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	196	48	134	378
	B	232	0	10	359	601
	C	173	80	0	26	279
	D	127	165	21	0	313
	Tot.	532	441	79	519	1571

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2026 P1 (With Link Road) PM
Junction: Unnamed Junction	
1/1	378
2/1	601
3/1	279
4/1	313
5/1	532
6/1	441
7/1	519
8/1	79

Lane Saturation Flows

Junction: Unnamed Junction

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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	51.9 %	1790	1790
				Arm 7 Right	Inf	35.4 %		
				Arm 8 Ahead	17.00	12.7 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	38.6 %	1965	1965
				Arm 7 Ahead	Inf	59.7 %		
				Arm 8 Left	12.00	1.7 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	62.0 %	1837	1837
				Arm 6 Right	15.00	28.7 %		
				Arm 7 Left	10.00	9.3 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	40.6 %	1935	1935
				Arm 6 Ahead	Inf	52.7 %		
				Arm 8 Right	16.00	6.7 %		
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

Full Input Data And Results

Scenario 7: '2033 Do Min AM' (FG7: '2033 Do Min AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	64	245	102	411
	B	37	0	67	172	276
	C	228	96	0	25	349
	D	124	378	32	0	534
	Tot.	389	538	344	299	1570

Traffic Lane Flows

Lane	Scenario 7: 2033 Do Min AM
Junction: Unnamed Junction	
1/1	411
2/1	276
3/1	349
4/1	534
5/1	389
6/1	538
7/1	299
8/1	344

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	15.6 %	1822	1822
				Arm 7 Right	Inf	24.8 %		
				Arm 8 Ahead	17.00	59.6 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	13.4 %	1959	1959
				Arm 7 Ahead	Inf	62.3 %		
				Arm 8 Left	12.00	24.3 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	65.3 %	1844	1844
				Arm 6 Right	15.00	27.5 %		
				Arm 7 Left	10.00	7.2 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	23.2 %	1985	1985
				Arm 6 Ahead	Inf	70.8 %		
				Arm 8 Right	16.00	6.0 %		
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 8: '2033 Do Min PM' (FG8: '2033 Do Min PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	64	179	122	365
	B	166	0	71	411	648
	C	230	70	0	32	332
	D	129	167	27	0	323
	Tot.	525	301	277	565	1668

Traffic Lane Flows

Lane	Scenario 8: 2033 Do Min PM
Junction: Unnamed Junction	
1/1	365
2/1	648
3/1	332
4/1	323
5/1	525
6/1	301
7/1	565
8/1	277

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	17.5 %	1832	1832
				Arm 7 Right	Inf	33.4 %		
				Arm 8 Ahead	17.00	49.0 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	25.6 %	1968	1968
				Arm 7 Ahead	Inf	63.4 %		
				Arm 8 Left	12.00	11.0 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	69.3 %	1849	1849
				Arm 6 Right	15.00	21.1 %		
				Arm 7 Left	10.00	9.6 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	39.9 %	1934	1934
				Arm 6 Ahead	Inf	51.7 %		
				Arm 8 Right	16.00	8.4 %		
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: '2033 Full Dev AM' (FG9: '2033 Full Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	207	143	110	460
	B	131	0	72	199	402
	C	188	126	0	17	331
	D	139	382	27	0	548
	Tot.	458	715	242	326	1741

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2033 Full Dev AM
Junction: Unnamed Junction	
1/1	460
2/1	402
3/1	331
4/1	548
5/1	458
6/1	715
7/1	326
8/1	242

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	45.0 %	1782	1782
				Arm 7 Right	Inf	23.9 %		
				Arm 8 Ahead	17.00	31.1 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	32.6 %	1938	1938
				Arm 7 Ahead	Inf	49.5 %		
				Arm 8 Left	12.00	17.9 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	56.8 %	1831	1831
				Arm 6 Right	15.00	38.1 %		
				Arm 7 Left	10.00	5.1 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	25.4 %	1980	1980
				Arm 6 Ahead	Inf	69.7 %		
				Arm 8 Right	16.00	4.9 %		
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

Full Input Data And Results

Scenario 10: '2033 Full Dev PM' (FG10: '2033 Full Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	218	71	141	430
	B	252	0	14	388	654
	C	194	84	0	32	310
	D	133	183	31	0	347
	Tot.	579	485	116	561	1741

Traffic Lane Flows

Lane	Scenario 10: 2033 Full Dev PM
Junction: Unnamed Junction	
1/1	430
2/1	654
3/1	310
4/1	347
5/1	579
6/1	485
7/1	561
8/1	116

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	50.7 %	1788	1788
				Arm 7 Right	Inf	32.8 %		
				Arm 8 Ahead	17.00	16.5 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	38.5 %	1964	1964
				Arm 7 Ahead	Inf	59.3 %		
				Arm 8 Left	12.00	2.1 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	62.6 %	1837	1837
				Arm 6 Right	15.00	27.1 %		
				Arm 7 Left	10.00	10.3 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	38.3 %	1937	1937
				Arm 6 Ahead	Inf	52.7 %		
				Arm 8 Right	16.00	8.9 %		
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 11: '2026 Resi P1A AM' (FG11: '2026 Resi P1A AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	62	231	97	390
	B	41	0	85	165	291
	C	215	96	0	24	335
	D	117	358	30	0	505
	Tot.	373	516	346	286	1521

Traffic Lane Flows

Lane	Scenario 11: 2026 Resi P1A AM
Junction: Unnamed Junction	
1/1	390
2/1	291
3/1	335
4/1	505
5/1	373
6/1	516
7/1	286
8/1	346

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	15.9 %	1822	1822
				Arm 7 Right	Inf	24.9 %		
				Arm 8 Ahead	17.00	59.2 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	14.1 %	1947	1947
				Arm 7 Ahead	Inf	56.7 %		
				Arm 8 Left	12.00	29.2 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	64.2 %	1842	1842
				Arm 6 Right	15.00	28.7 %		
				Arm 7 Left	10.00	7.2 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	23.2 %	1985	1985
				Arm 6 Ahead	Inf	70.9 %		
				Arm 8 Right	16.00	5.9 %		
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 12: '2026 Resi P1A PM' (FG12: '2026 Resi P1A PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	67	169	115	351
	B	160	0	81	389	630
	C	217	88	0	30	335
	D	123	160	25	0	308
	Tot.	500	315	275	534	1624

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: 2026 Resi P1A PM
Junction: Unnamed Junction	
1/1	351
2/1	630
3/1	335
4/1	308
5/1	500
6/1	315
7/1	534
8/1	275

Lane Saturation Flows

Junction: Unnamed Junction

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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	19.1 %	1829	1829
				Arm 7 Right	Inf	32.8 %		
				Arm 8 Ahead	17.00	48.1 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	25.4 %	1964	1964
				Arm 7 Ahead	Inf	61.7 %		
				Arm 8 Left	12.00	12.9 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	64.8 %	1842	1842
				Arm 6 Right	15.00	26.3 %		
				Arm 7 Left	10.00	9.0 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	39.9 %	1934	1934
				Arm 6 Ahead	Inf	51.9 %		
				Arm 8 Right	16.00	8.1 %		
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 13: '2033 Full Resi AM' (FG13: '2033 Full Resi AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	176	143	110	429
	B	116	0	72	192	380
	C	188	126	0	17	331
	D	139	366	27	0	532
	Tot.	443	668	242	319	1672

Traffic Lane Flows

Lane	Scenario 13: 2033 Full Resi AM
Junction: Unnamed Junction	
1/1	429
2/1	380
3/1	331
4/1	532
5/1	443
6/1	668
7/1	319
8/1	242

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	41.0 %	1790	1790
				Arm 7 Right	Inf	25.6 %		
				Arm 8 Ahead	17.00	33.3 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	30.5 %	1940	1940
				Arm 7 Ahead	Inf	50.5 %		
				Arm 8 Left	12.00	18.9 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	56.8 %	1831	1831
				Arm 6 Right	15.00	38.1 %		
				Arm 7 Left	10.00	5.1 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	26.1 %	1978	1978
				Arm 6 Ahead	Inf	68.8 %		
				Arm 8 Right	16.00	5.1 %		
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 14: '2033 Full Resi PM' (FG14: '2033 Full Resi PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	206	71	141	418
	B	226	0	14	375	615
	C	194	84	0	32	310
	D	133	177	31	0	341
	Tot.	553	467	116	548	1684

Traffic Lane Flows

Lane	Scenario 14: 2033 Full Resi PM
Junction: Unnamed Junction	
1/1	418
2/1	615
3/1	310
4/1	341
5/1	553
6/1	467
7/1	548
8/1	116

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	49.3 %	1791	1791
				Arm 7 Right	Inf	33.7 %		
				Arm 8 Ahead	17.00	17.0 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	36.7 %	1967	1967
				Arm 7 Ahead	Inf	61.0 %		
				Arm 8 Left	12.00	2.3 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	62.6 %	1837	1837
				Arm 6 Right	15.00	27.1 %		
				Arm 7 Left	10.00	10.3 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	39.0 %	1935	1935
				Arm 6 Ahead	Inf	51.9 %		
				Arm 8 Right	16.00	9.1 %		
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 15: '2026 Emp AM' (FG15: '2026 Emp AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	60	263	97	420
	B	35	0	118	162	315
	C	230	117	0	31	378
	D	117	357	45	0	519
	Tot.	382	534	426	290	1632

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 15: 2026 Emp AM
Junction: Unnamed Junction	
1/1	420
2/1	315
3/1	378
4/1	519
5/1	382
6/1	534
7/1	290
8/1	426

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	14.3 %	1821	1821
				Arm 7 Right	Inf	23.1 %		
				Arm 8 Ahead	17.00	62.6 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	11.1 %	1933	1933
				Arm 7 Ahead	Inf	51.4 %		
				Arm 8 Left	12.00	37.5 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	60.8 %	1836	1836
				Arm 6 Right	15.00	31.0 %		
				Arm 7 Left	10.00	8.2 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	22.5 %	1982	1982
				Arm 6 Ahead	Inf	68.8 %		
				Arm 8 Right	16.00	8.7 %		
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

Full Input Data And Results

Scenario 16: '2026 Emp PM' (FG16: '2026 Emp PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	60	181	115	356
	B	157	0	89	387	633
	C	243	111	0	42	396
	D	123	158	31	0	312
	Tot.	523	329	301	544	1697

Traffic Lane Flows

Lane	Scenario 16: 2026 Emp PM
Junction: Unnamed Junction	
1/1	356
2/1	633
3/1	396
4/1	312
5/1	523
6/1	329
7/1	544
8/1	301

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	16.9 %	1831	1831
				Arm 7 Right	Inf	32.3 %		
				Arm 8 Ahead	17.00	50.8 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	24.8 %	1962	1962
				Arm 7 Ahead	Inf	61.1 %		
				Arm 8 Left	12.00	14.1 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	61.4 %	1834	1834
				Arm 6 Right	15.00	28.0 %		
				Arm 7 Left	10.00	10.6 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	39.4 %	1933	1933
				Arm 6 Ahead	Inf	50.6 %		
				Arm 8 Right	16.00	9.9 %		
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

Full Input Data And Results

Scenario 17: '2026 P1 (Without Link Road) AM' (FG17: '2026 P1 (Without Link Road) AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	62	263	97	422
	B	41	0	140	165	346
	C	230	123	0	31	384
	D	117	358	45	0	520
	Tot.	388	543	448	293	1672

Traffic Lane Flows

Lane	Scenario 17: 2026 P1 (Without Link Road) AM
Junction: Unnamed Junction	
1/1	422
2/1	346
3/1	384
4/1	520
5/1	388
6/1	543
7/1	293
8/1	448

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	14.7 %	1820	1820
				Arm 7 Right	Inf	23.0 %		
				Arm 8 Ahead	17.00	62.3 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	11.8 %	1925	1925
				Arm 7 Ahead	Inf	47.7 %		
				Arm 8 Left	12.00	40.5 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	59.9 %	1834	1834
				Arm 6 Right	15.00	32.0 %		
				Arm 7 Left	10.00	8.1 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	22.5 %	1982	1982
				Arm 6 Ahead	Inf	68.8 %		
				Arm 8 Right	16.00	8.7 %		
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 18: '2026 P1 (Without Link Road) PM' (FG18: '2026 P1 (Without Link Road) PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	67	181	115	363
	B	160	0	102	389	651
	C	243	134	0	42	419
	D	123	160	31	0	314
	Tot.	526	361	314	546	1747

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 18: 2026 P1 (Without Link Road) PM
Junction: Unnamed Junction	
1/1	363
2/1	651
3/1	419
4/1	314
5/1	526
6/1	361
7/1	546
8/1	314

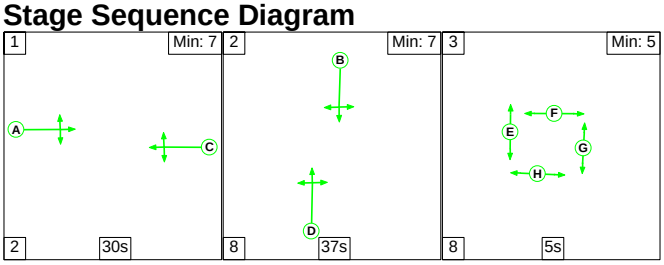
Lane Saturation Flows

Junction: Unnamed Junction

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 (B6428)	3.50	0.00	Y	Arm 6 Left	9.00	18.5 %	1828	1828
				Arm 7 Right	Inf	31.7 %		
				Arm 8 Ahead	17.00	49.9 %		
2/1 (Barugh Green east)	4.30	0.00	Y	Arm 5 Right	15.00	24.6 %	1959	1959
				Arm 7 Ahead	Inf	59.8 %		
				Arm 8 Left	12.00	15.7 %		
3/1 (Higham Common Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	58.0 %	1829	1829
				Arm 6 Right	15.00	32.0 %		
				Arm 7 Left	10.00	10.0 %		
4/1 (Cawthorne Road)	4.50	0.00	Y	Arm 5 Left	10.00	39.2 %	1933	1933
				Arm 6 Ahead	Inf	51.0 %		
				Arm 8 Right	16.00	9.9 %		
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 1: '2022 Base AM' (FG1: '2022 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

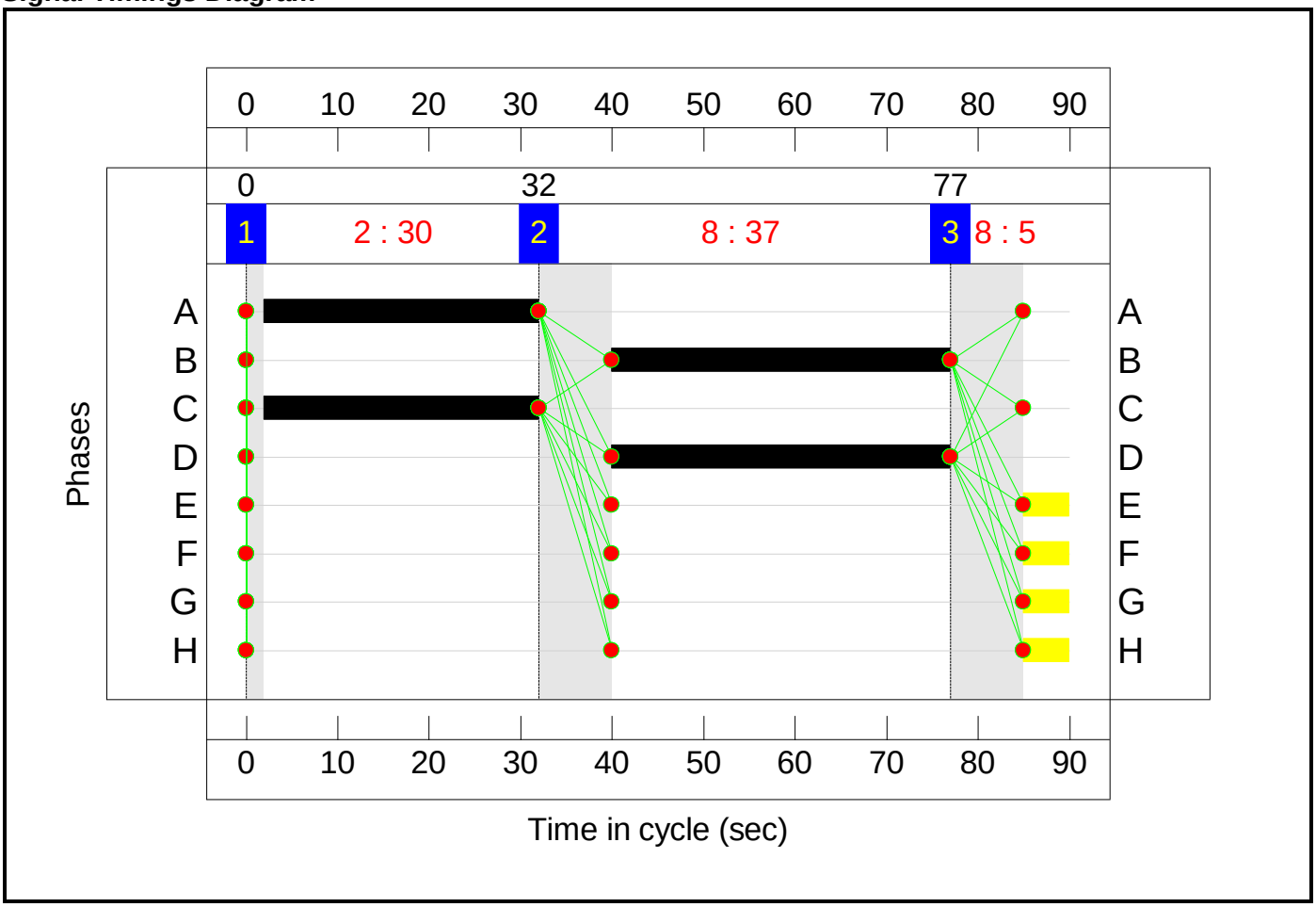


Full Input Data And Results

Stage Timings

Stage	1	2	3
Duration	30	37	5
Change Point	0	32	77

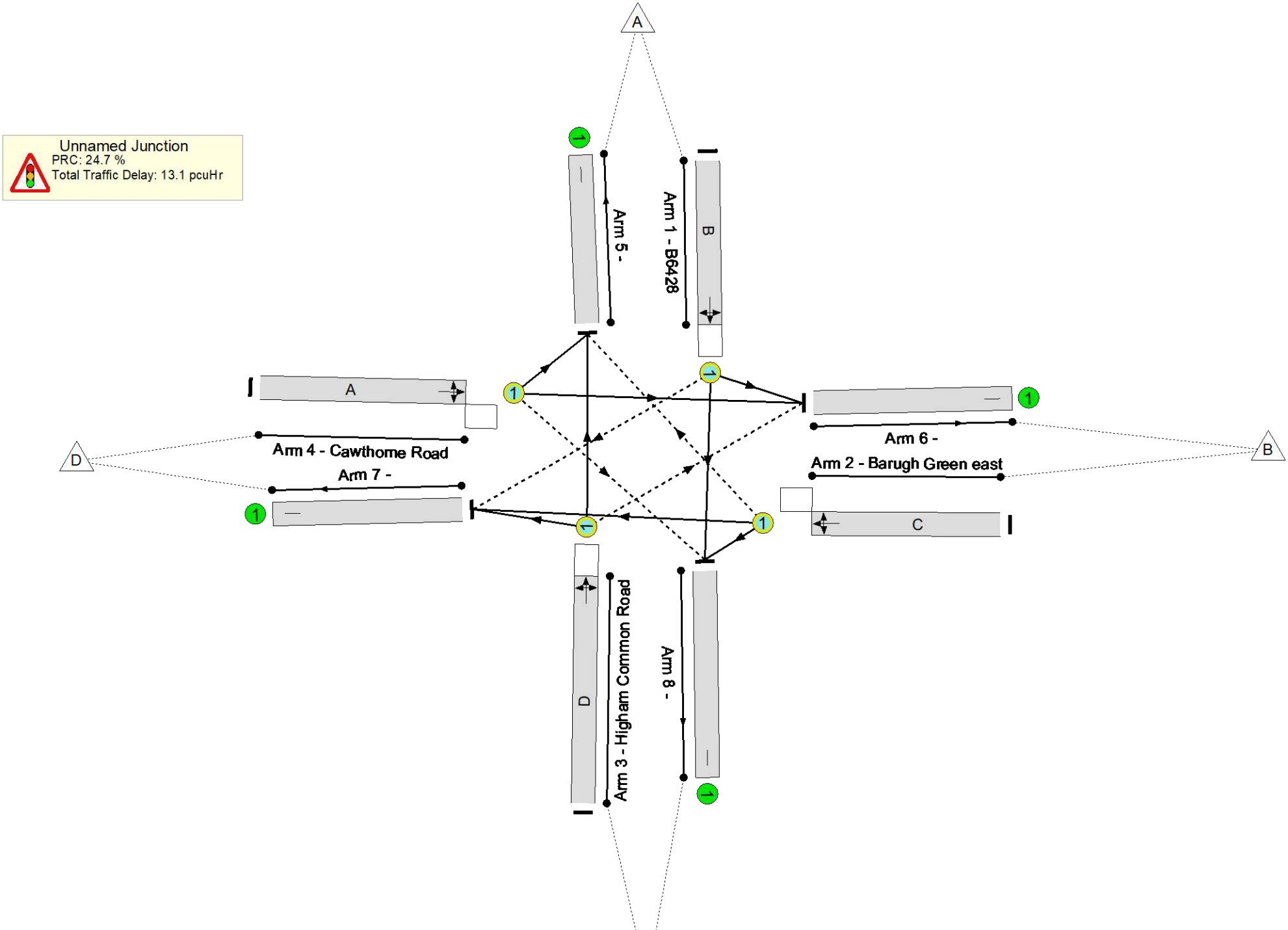
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.2%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.2%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	37	-	368	1818	557	66.1%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	30	-	253	1959	650	38.9%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	37	-	325	1844	465	69.9%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	30	-	494	1987	684	72.2%
5/1		U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	503	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	263	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	317	Inf	Inf	0.0%

Full Input Data And Results

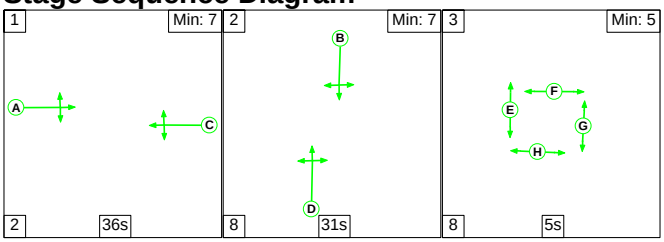
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**233**	**0**	**4**	**9.1**	**3.7**	**0.3**	**13.1**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**233**	**0**	**4**	**9.1**	**3.7**	**0.3**	**13.1**	**-**	**-**	**-**	**-**
1/1	368	368	81	0	2	1.9	1.0	0.0	2.9	28.6	6.6	1.0	7.6
2/1	253	253	34	0	0	1.6	0.3	0.1	2.0	28.6	4.7	0.3	5.0
3/1	325	325	88	0	2	2.1	1.1	0.1	3.3	37.1	7.2	1.1	8.4
4/1	494	494	30	0	0	3.5	1.3	0.0	4.8	35.2	10.7	1.3	12.0
5/1	357	357	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	503	503	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	263	263	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	317	317	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 24.7 Total Delay for Signalled Lanes (pcuHr): 13.11 Cycle Time (s): 90
PRC Over All Lanes (%): 24.7 Total Delay Over All Lanes(pcuHr): 13.11

Full Input Data And Results

Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')

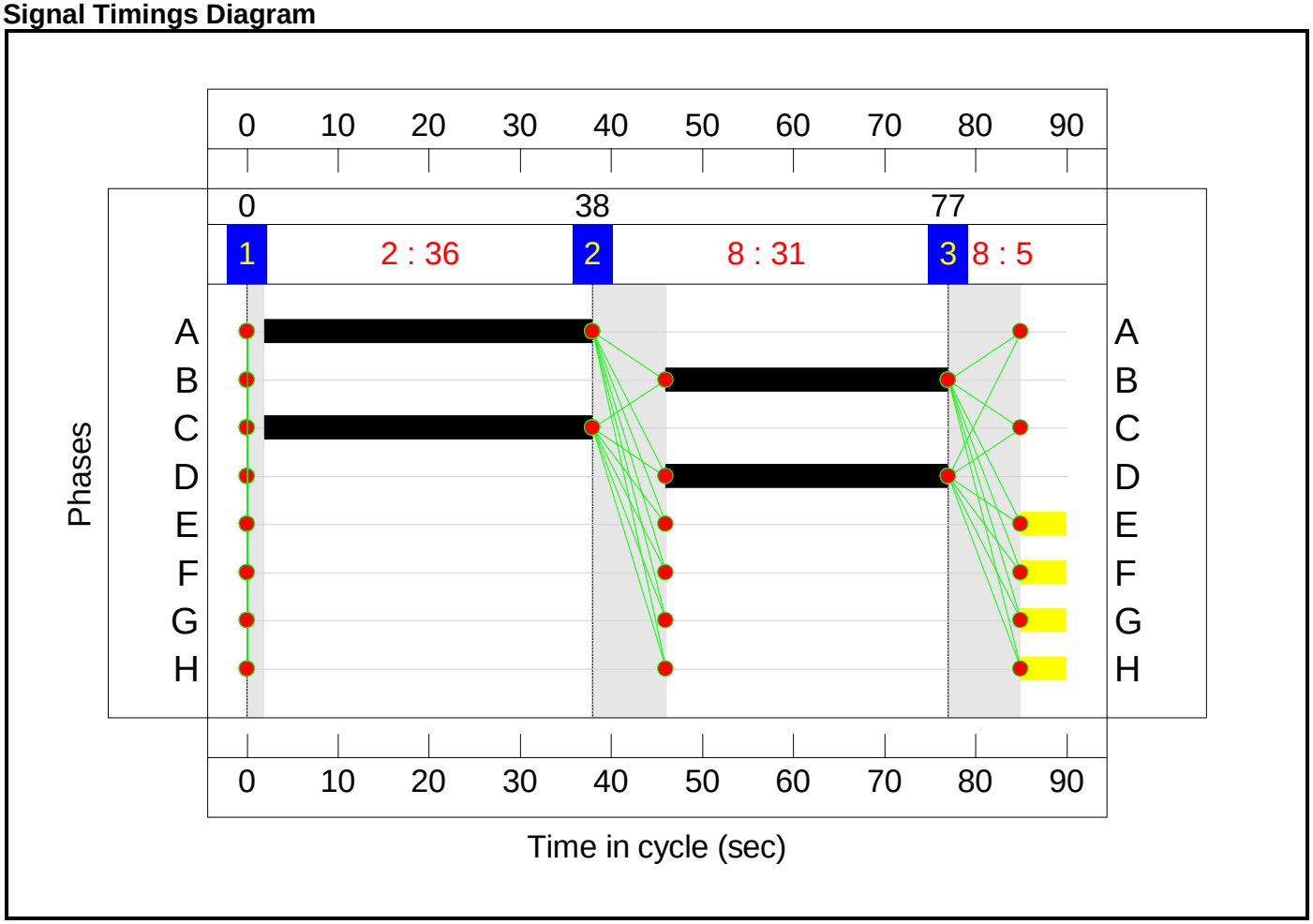
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	36	31	5
Change Point	0	38	77

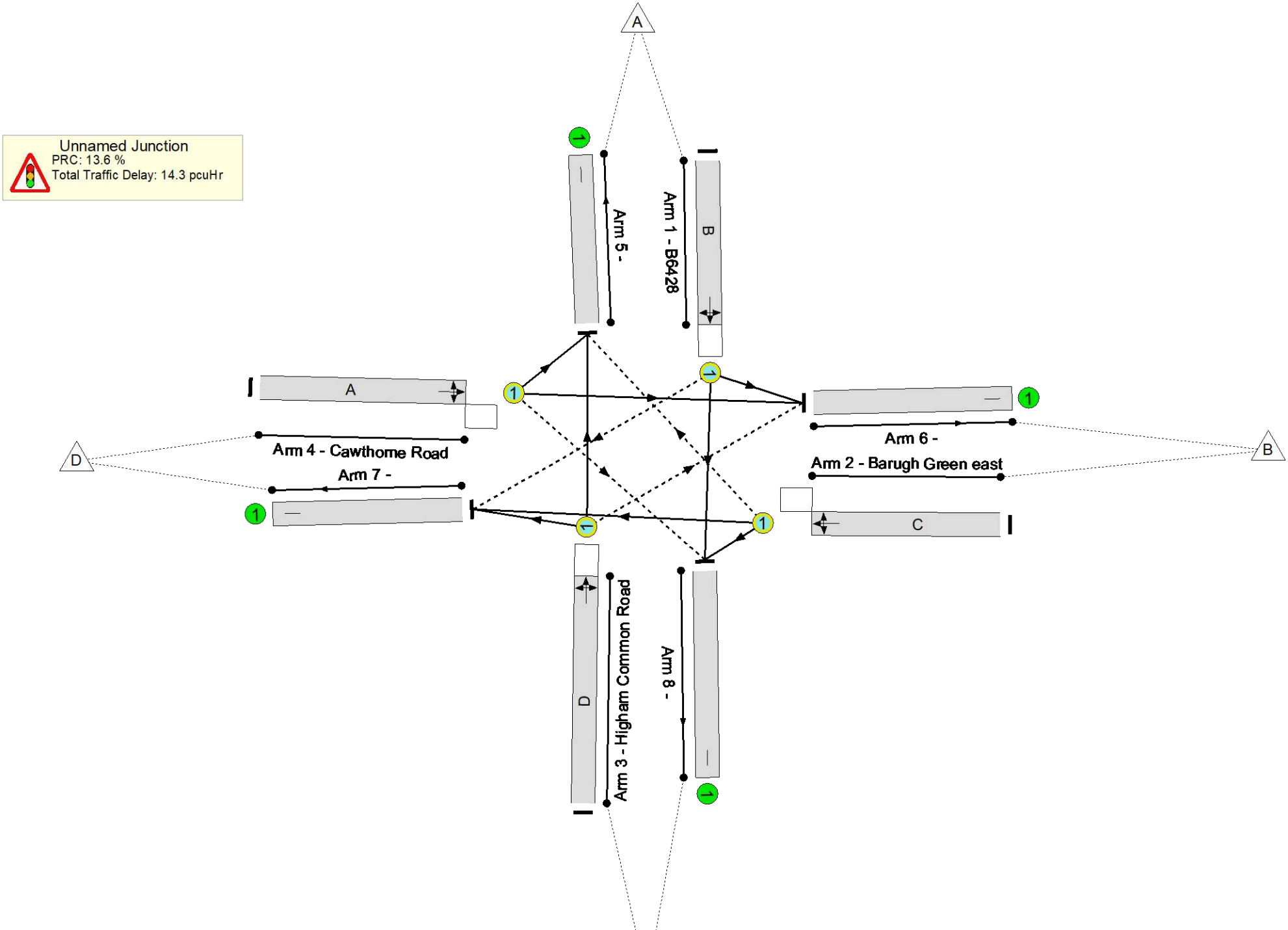
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.2%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.2%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	31	-	331	1829	418	79.2%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	36	-	606	1967	783	77.4%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	31	-	305	1848	508	60.1%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	36	-	286	1940	798	35.9%
5/1		U	N/A	N/A	-		-	-	-	473	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	279	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	519	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	257	Inf	Inf	0.0%

Full Input Data And Results

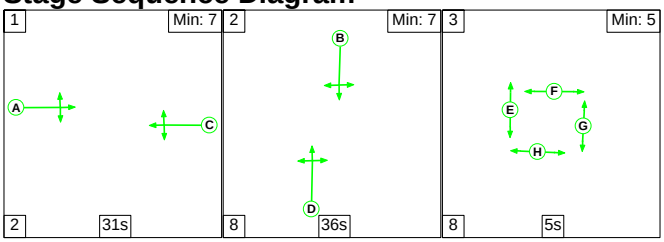
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**348**	**0**	**4**	**9.4**	**4.5**	**0.3**	**14.3**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**348**	**0**	**4**	**9.4**	**4.5**	**0.3**	**14.3**	**-**	**-**	**-**	**-**
1/1	331	331	104	0	2	2.2	1.8	0.1	4.1	44.7	6.8	1.8	8.6
2/1	606	606	156	0	0	3.9	1.7	0.1	5.7	33.7	13.1	1.7	14.8
3/1	305	305	64	0	1	1.9	0.7	0.0	2.7	31.9	6.0	0.7	6.8
4/1	286	286	25	0	0	1.5	0.3	0.1	1.8	22.5	4.9	0.3	5.2
5/1	473	473	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	519	519	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	257	257	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 13.6 Total Delay for Signalled Lanes (pcuHr): 14.26 Cycle Time (s): 90
PRC Over All Lanes (%): 13.6 Total Delay Over All Lanes(pcuHr): 14.26

Full Input Data And Results

Scenario 3: '2026 Do Min AM' (FG3: '2026 Do Min AM', Plan 1: 'Network Control Plan 1')

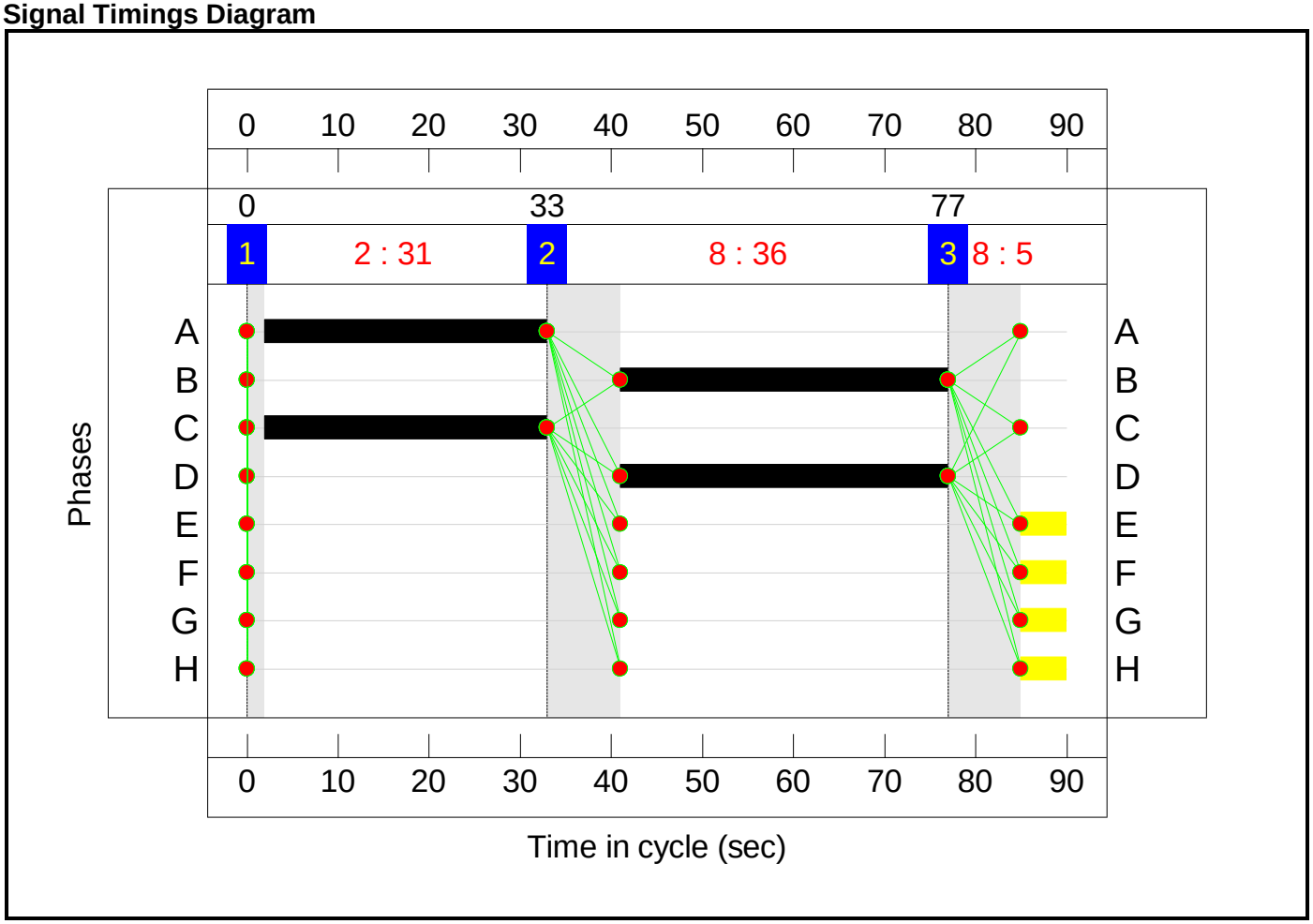
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	31	36	5
Change Point	0	33	77

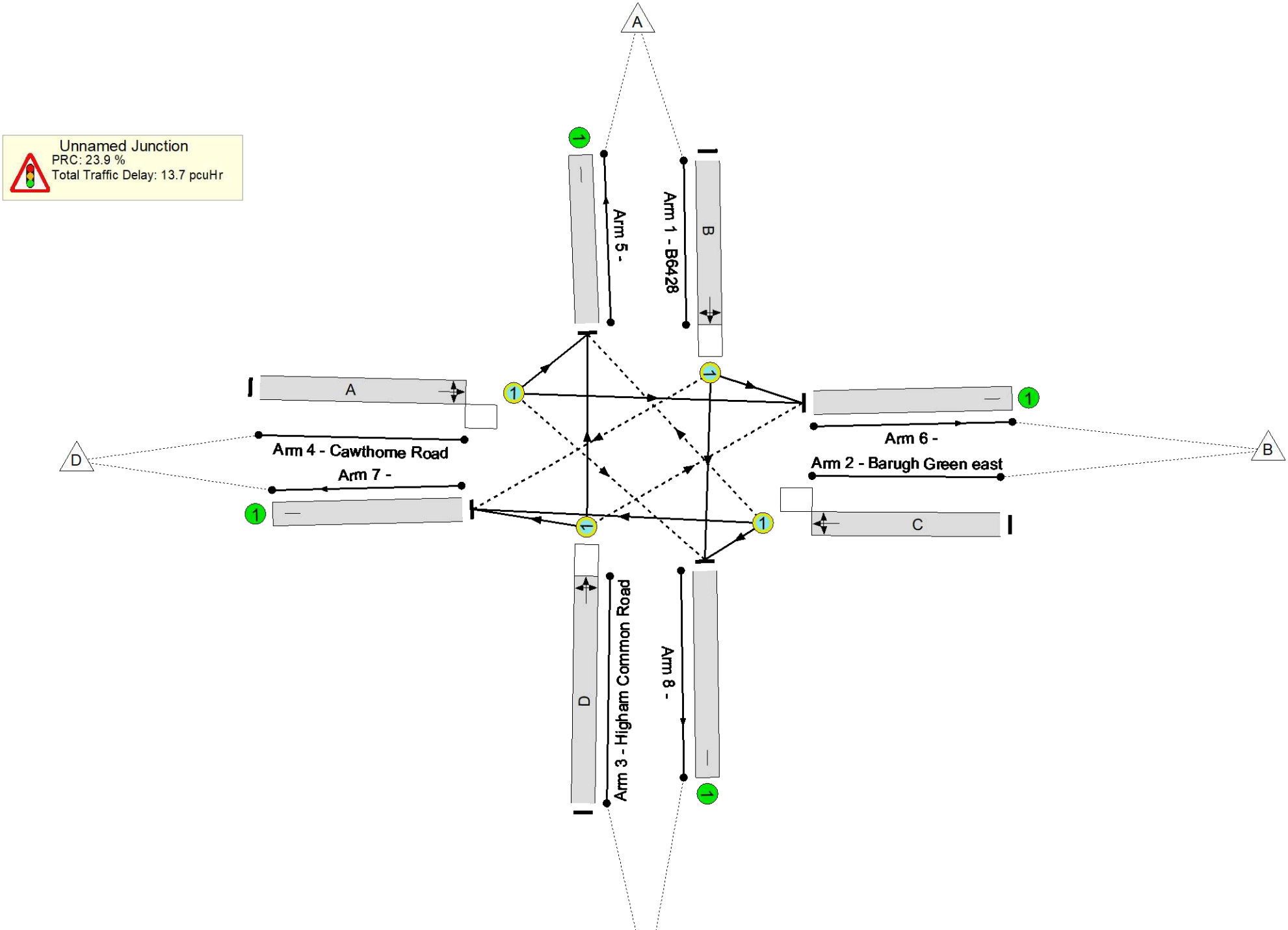
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.7%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.7%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	36	-	388	1822	534	72.7%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	31	-	260	1959	668	38.9%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	36	-	329	1844	457	72.0%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	31	-	504	1985	706	71.4%
5/1		U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	507	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	283	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	324	Inf	Inf	0.0%

Full Input Data And Results

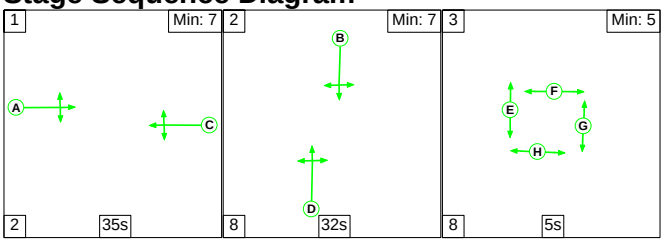
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**248**	**0**	**4**	**9.3**	**4.1**	**0.3**	**13.7**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**248**	**0**	**4**	**9.3**	**4.1**	**0.3**	**13.7**	**-**	**-**	**-**	**-**
1/1	388	388	95	0	2	2.1	1.3	0.0	3.5	32.4	7.3	1.3	8.6
2/1	260	260	35	0	0	1.6	0.3	0.1	2.0	27.8	4.8	0.3	5.1
3/1	329	329	88	0	2	2.1	1.3	0.1	3.4	37.6	7.3	1.3	8.6
4/1	504	504	30	0	0	3.5	1.2	0.0	4.8	34.0	10.8	1.2	12.0
5/1	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	507	507	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	283	283	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	324	324	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 23.9 Total Delay for Signalled Lanes (pcuHr): 13.70 Cycle Time (s): 90
PRC Over All Lanes (%): 23.9 Total Delay Over All Lanes(pcuHr): 13.70

Full Input Data And Results

Scenario 4: '2026 Do Min PM' (FG4: '2026 Do Min PM', Plan 1: 'Network Control Plan 1')

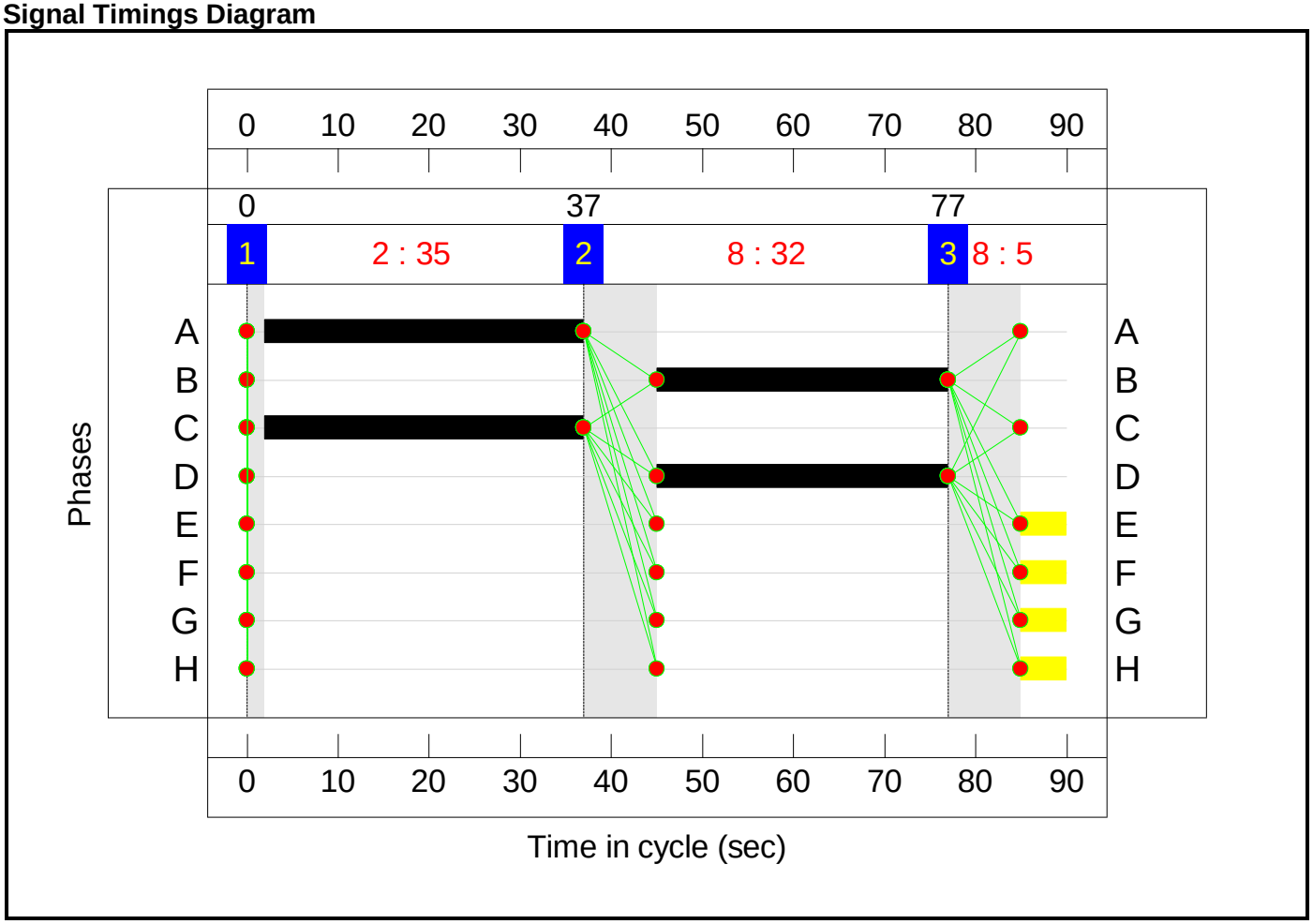
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	35	32	5
Change Point	0	37	77

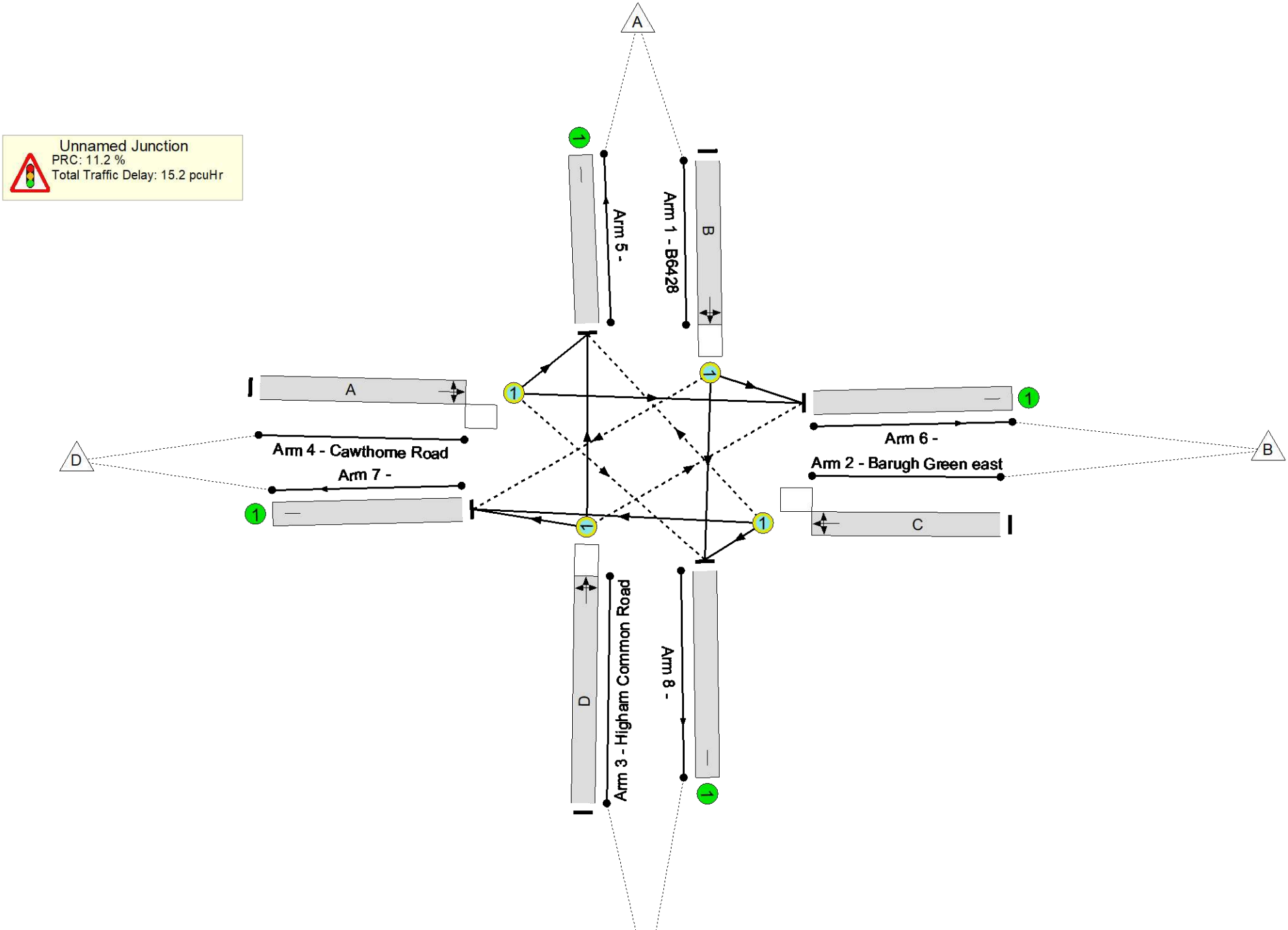
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**80.9%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**80.9%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	32	-	344	1832	432	79.7%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	35	-	611	1967	755	80.9%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	32	-	313	1849	532	58.9%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	35	-	306	1934	774	39.6%
5/1		U	N/A	N/A	-		-	-	-	497	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	532	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	261	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**359**	**0**	**4**	**9.9**	**5.0**	**0.3**	**15.2**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**359**	**0**	**4**	**9.9**	**5.0**	**0.3**	**15.2**	**-**	**-**	**-**	**-**
1/1	344	344	112	0	3	2.2	1.9	0.1	4.2	44.2	7.1	1.9	9.0
2/1	611	611	157	0	0	4.1	2.1	0.1	6.3	37.0	13.6	2.1	15.6
3/1	313	313	65	0	1	1.9	0.7	0.0	2.6	30.4	6.1	0.7	6.8
4/1	306	306	25	0	0	1.6	0.3	0.1	2.0	23.7	5.4	0.3	5.8
5/1	497	497	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	532	532	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	261	261	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 11.2
PRC Over All Lanes (%): 11.2

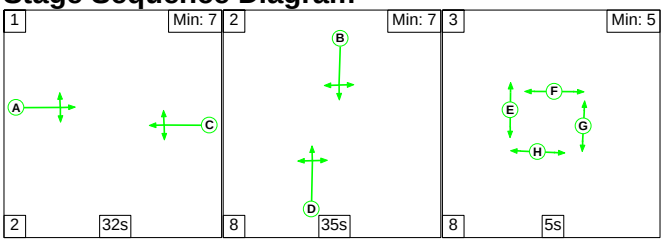
Total Delay for Signalled Lanes (pcuHr): 15.17
Total Delay Over All Lanes(pcuHr): 15.17

Cycle Time (s): 90

Full Input Data And Results

Scenario 5: '2026 P1 (With Link Road) AM' (FG5: '2026 P1 (With Link Road) AM', Plan 1: 'Network Control Plan 1')

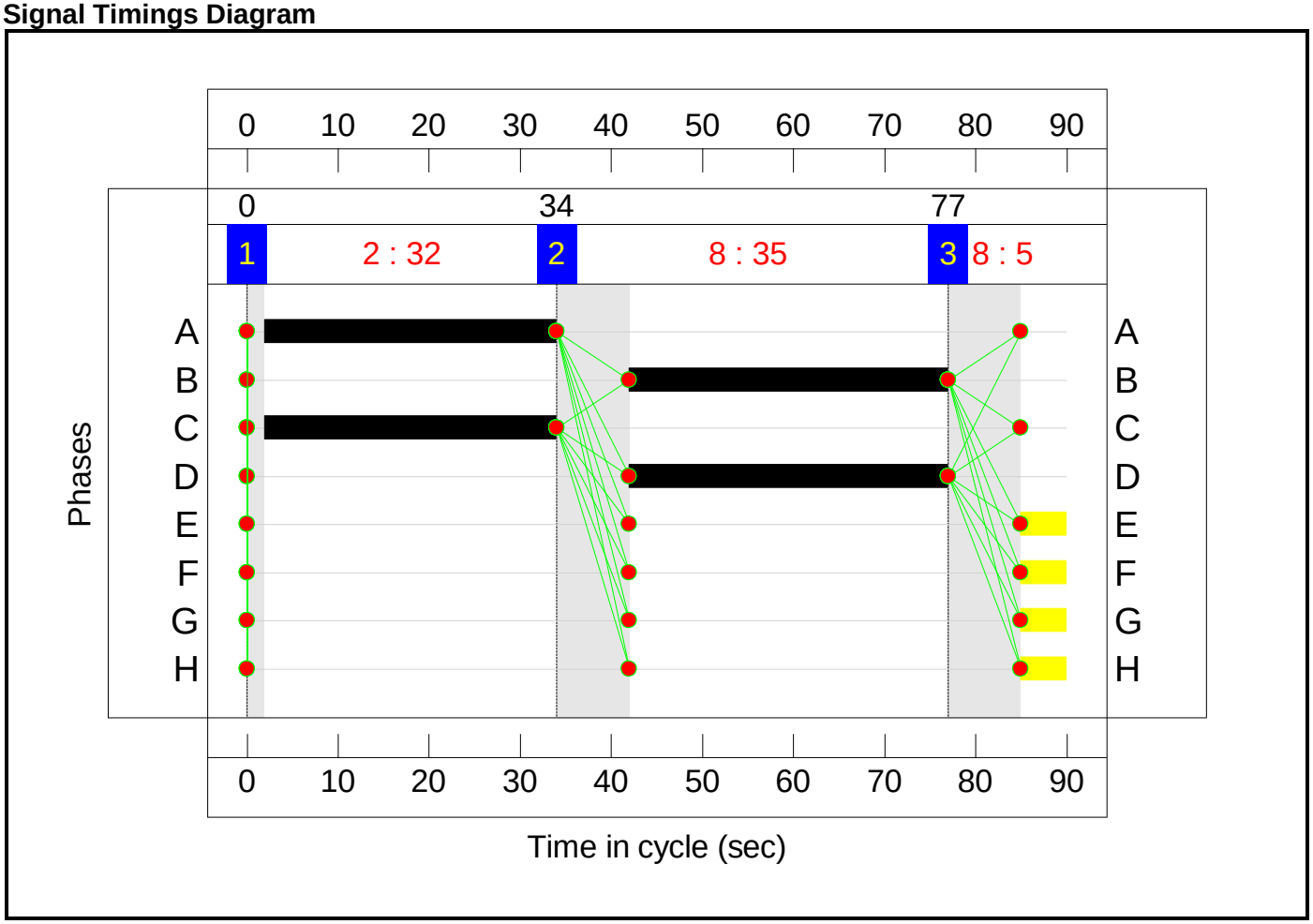
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	32	35	5
Change Point	0	34	77

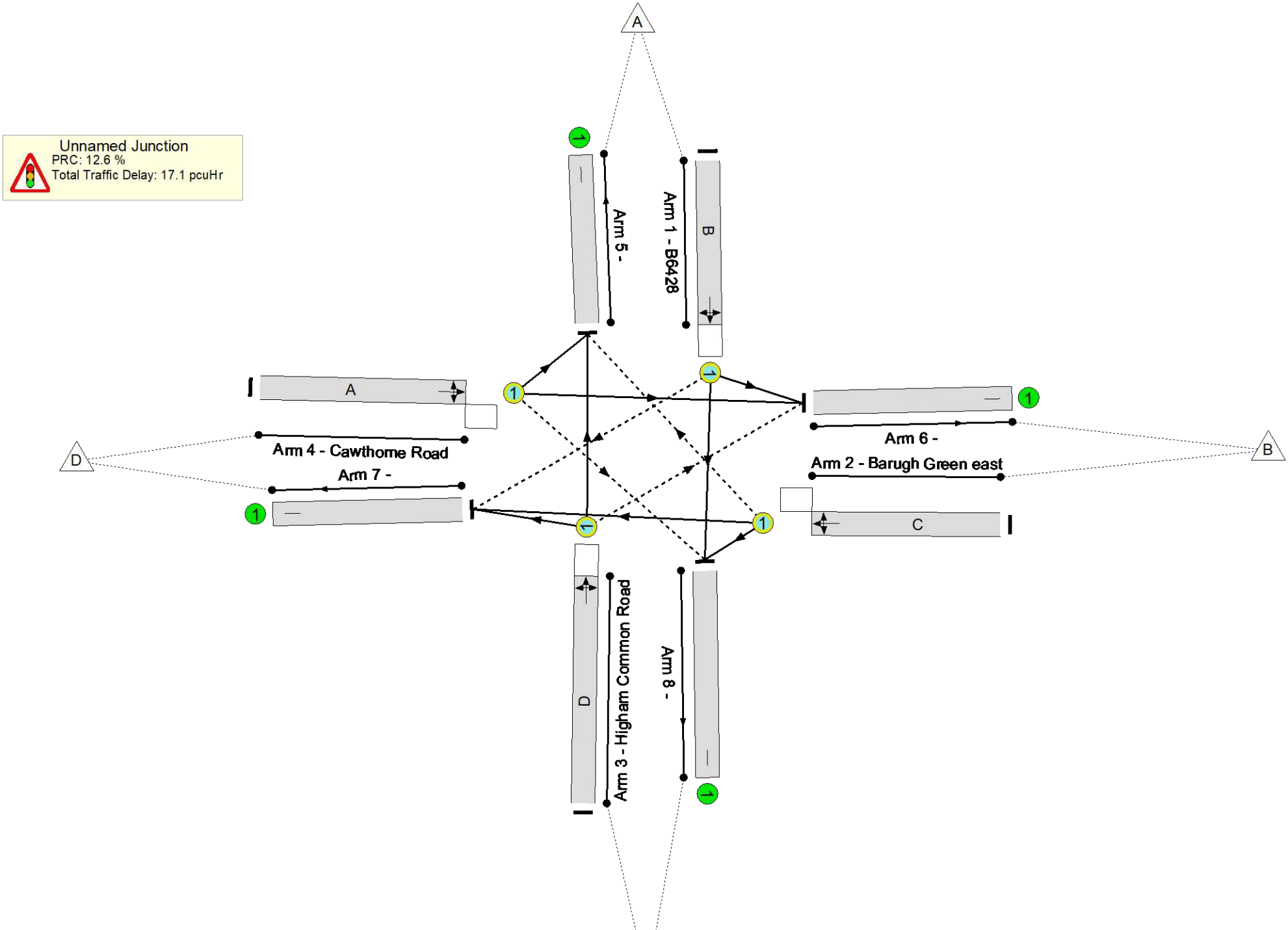
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.9%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.9%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	35	-	429	1781	622	68.9%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	32	-	361	1939	452	79.9%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	35	-	290	1832	364	79.7%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	32	-	513	1980	726	70.7%
5/1		U	N/A	N/A	-		-	-	-	406	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	677	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**355**	**0**	**5**	**10.3**	**6.1**	**0.7**	**17.1**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**355**	**0**	**5**	**10.3**	**6.1**	**0.7**	**17.1**	**-**	**-**	**-**	**-**
1/1	429	429	103	0	2	2.5	1.1	0.0	3.7	30.8	8.5	1.1	9.6
2/1	361	361	112	0	0	2.4	1.9	0.4	4.7	47.2	8.4	1.9	10.3
3/1	290	290	117	0	3	1.9	1.9	0.2	4.0	49.6	6.8	1.9	8.6
4/1	513	513	23	0	0	3.5	1.2	0.0	4.7	32.9	10.8	1.2	12.0
5/1	406	406	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	677	677	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	294	294	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 12.6
PRC Over All Lanes (%): 12.6

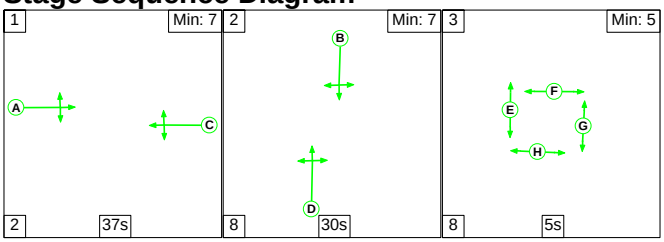
Total Delay for Signalled Lanes (pcuHr): 17.09
Total Delay Over All Lanes(pcuHr): 17.09

Cycle Time (s): 90

Full Input Data And Results

Scenario 6: '2026 P1 (With Link Road) PM' (FG6: '2026 P1 (With Link Road) PM', Plan 1: 'Network Control Plan 1')

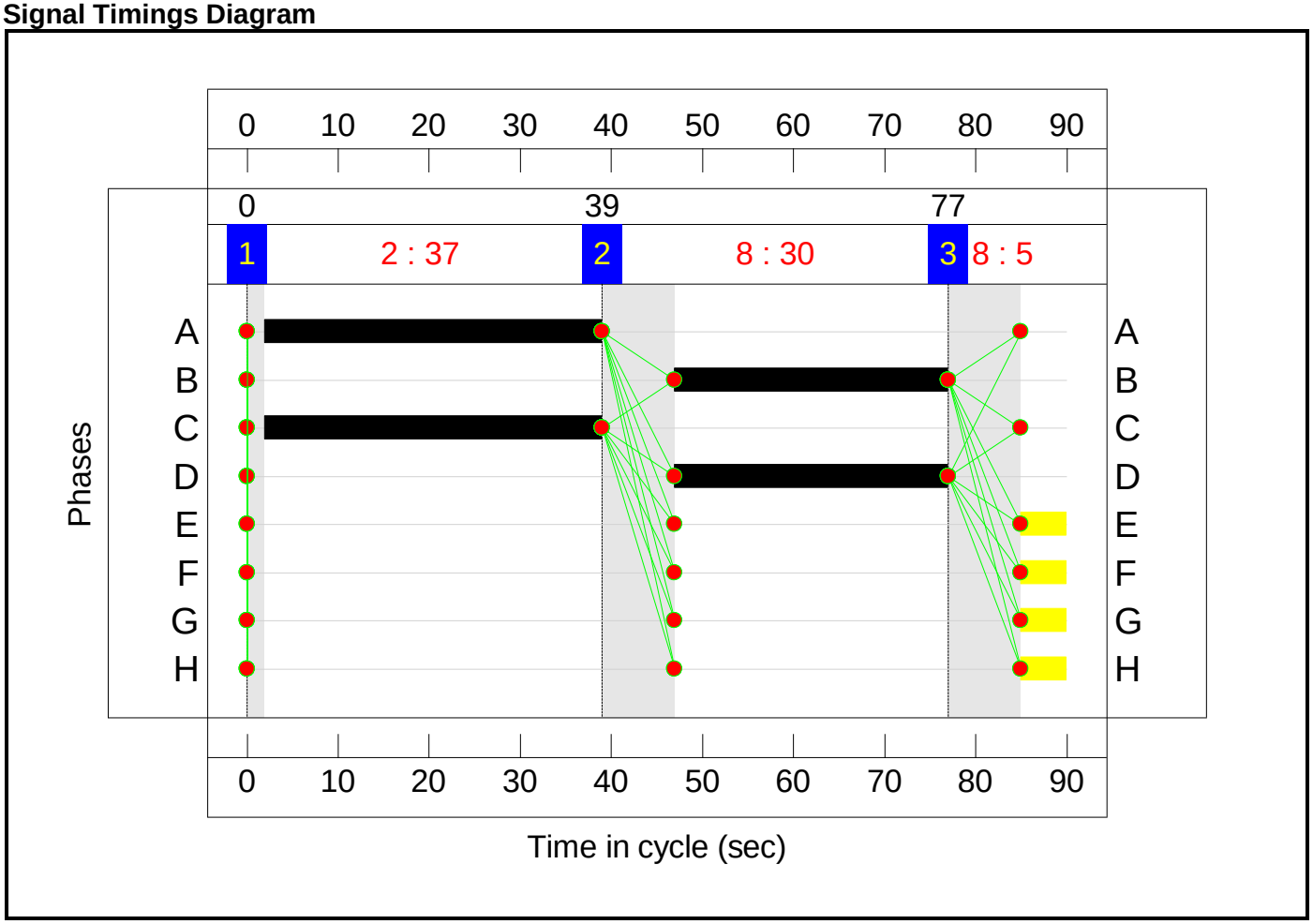
Stage Sequence Diagram



Stage Timings

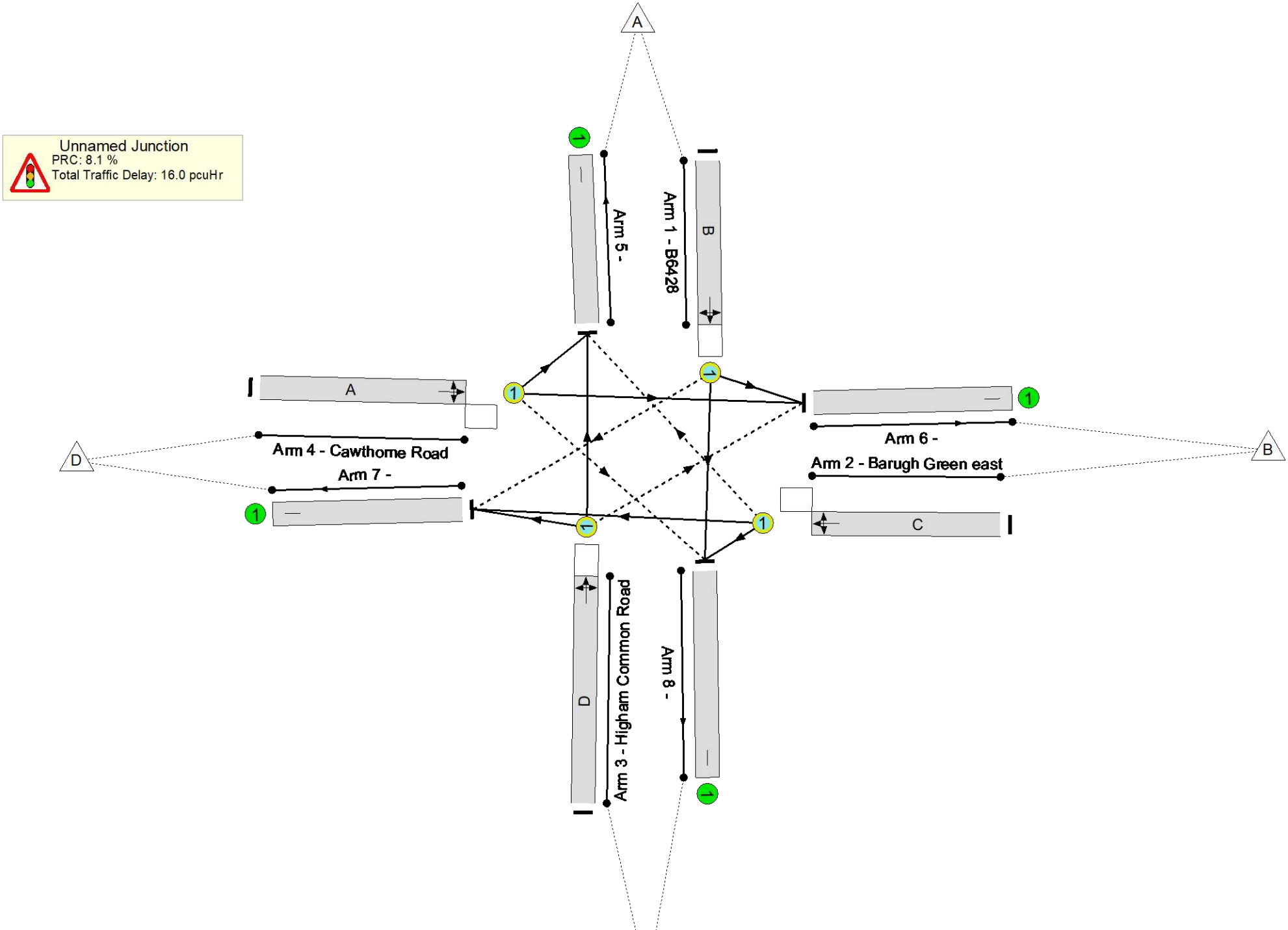
Stage	1	2	3
Duration	37	30	5
Change Point	0	39	77

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Unnamed Junction
PRC: 8.1 %
Total Traffic Delay: 16.0 pcuHr
A
B
C
D
Arm 1 - B6428
Arm 2 - Barugh Green east
Arm 3 - Higham Common Road
Arm 4 - Cawthorne Road
Arm 5 -
Arm 6 -
Arm 7 -
Arm 8 -

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.2%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.2%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	30	-	378	1790	454	83.2%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	37	-	601	1965	731	82.2%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	30	-	279	1837	462	60.4%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	37	-	313	1935	817	38.3%
5/1		U	N/A	N/A	-		-	-	-	532	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	441	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	519	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	79	Inf	Inf	0.0%

Full Input Data And Results

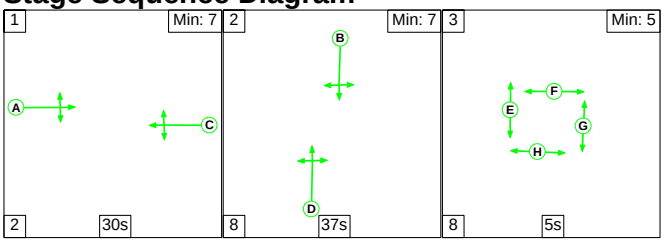
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**462**	**0**	**5**	**10.0**	**5.6**	**0.4**	**16.0**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**462**	**0**	**5**	**10.0**	**5.6**	**0.4**	**16.0**	**-**	**-**	**-**	**-**
1/1	378	378	131	0	3	2.7	2.3	0.1	5.1	48.7	8.3	2.3	10.6
2/1	601	601	232	0	0	4.0	2.2	0.2	6.5	38.6	13.5	2.2	15.8
3/1	279	279	78	0	2	1.8	0.8	0.0	2.6	33.3	5.5	0.8	6.3
4/1	313	313	21	0	0	1.6	0.3	0.0	1.9	21.5	5.4	0.3	5.7
5/1	532	532	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	441	441	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	519	519	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	79	79	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 8.1 Total Delay for Signalled Lanes (pcuHr): 16.02 Cycle Time (s): 90
PRC Over All Lanes (%): 8.1 Total Delay Over All Lanes(pcuHr): 16.02

Full Input Data And Results

Scenario 7: '2033 Do Min AM' (FG7: '2033 Do Min AM', Plan 1: 'Network Control Plan 1')

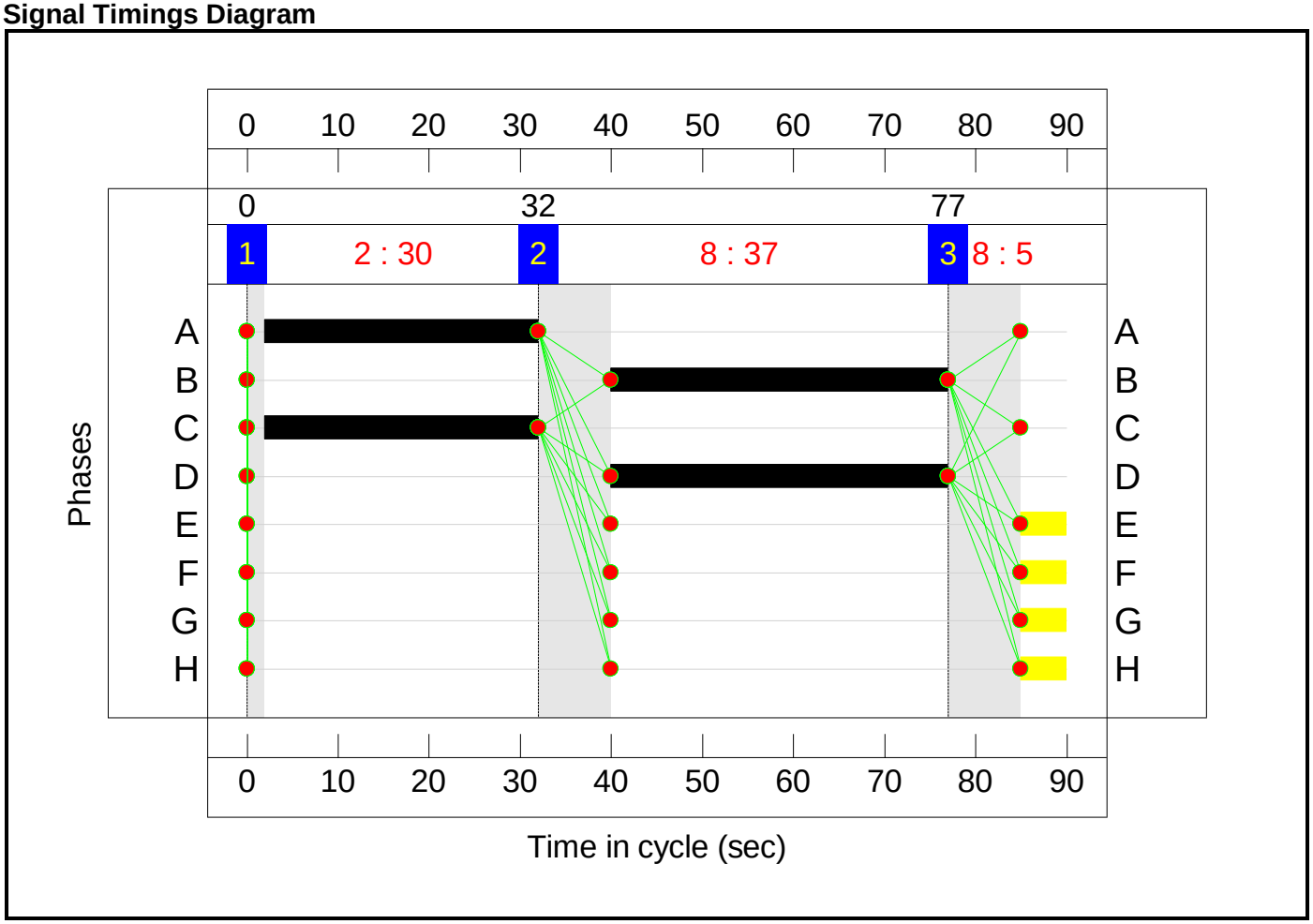
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	30	37	5
Change Point	0	32	77

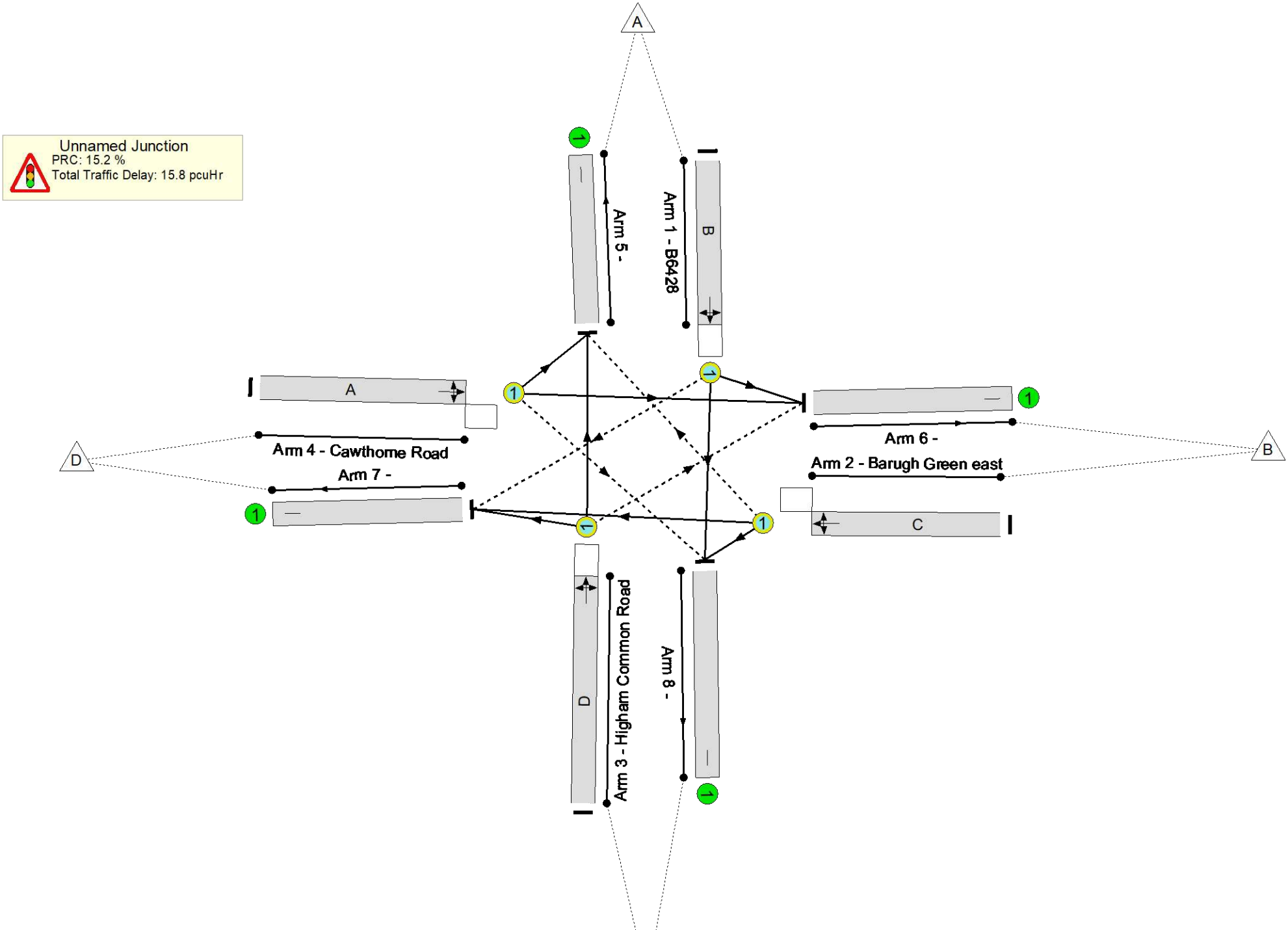
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.1%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.1%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	37	-	411	1822	539	76.2%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	30	-	276	1959	638	43.2%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	37	-	349	1844	454	76.9%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	30	-	534	1985	684	78.1%
5/1		U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	538	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	344	Inf	Inf	0.0%

Full Input Data And Results

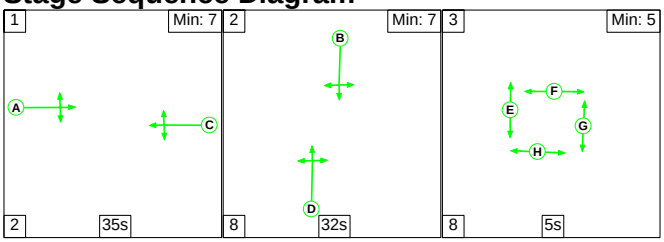
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**263**	**0**	**4**	**10.1**	**5.3**	**0.4**	**15.8**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**263**	**0**	**4**	**10.1**	**5.3**	**0.4**	**15.8**	**-**	**-**	**-**	**-**
1/1	411	411	100	0	2	2.2	1.6	0.0	3.8	33.6	7.8	1.6	9.3
2/1	276	276	37	0	0	1.7	0.4	0.2	2.3	29.6	5.2	0.4	5.6
3/1	349	349	94	0	2	2.2	1.6	0.1	4.0	40.9	7.9	1.6	9.6
4/1	534	534	32	0	0	3.9	1.7	0.0	5.7	38.3	11.9	1.7	13.6
5/1	389	389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	538	538	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	344	344	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 15.2 Total Delay for Signalled Lanes (pcuHr): 15.75 Cycle Time (s): 90
PRC Over All Lanes (%): 15.2 Total Delay Over All Lanes(pcuHr): 15.75

Full Input Data And Results

Scenario 8: '2033 Do Min PM' (FG8: '2033 Do Min PM', Plan 1: 'Network Control Plan 1')

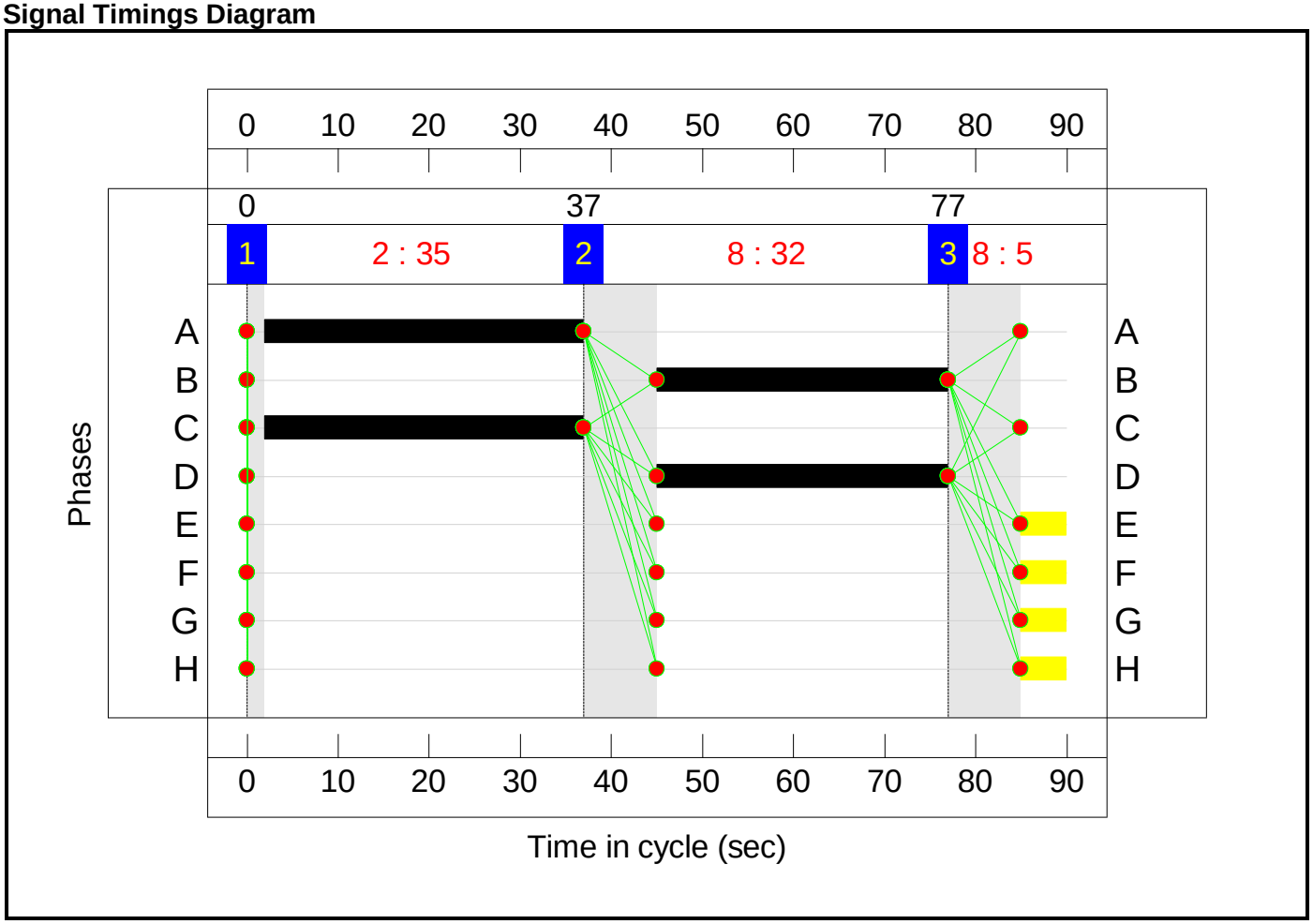
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	35	32	5
Change Point	0	37	77

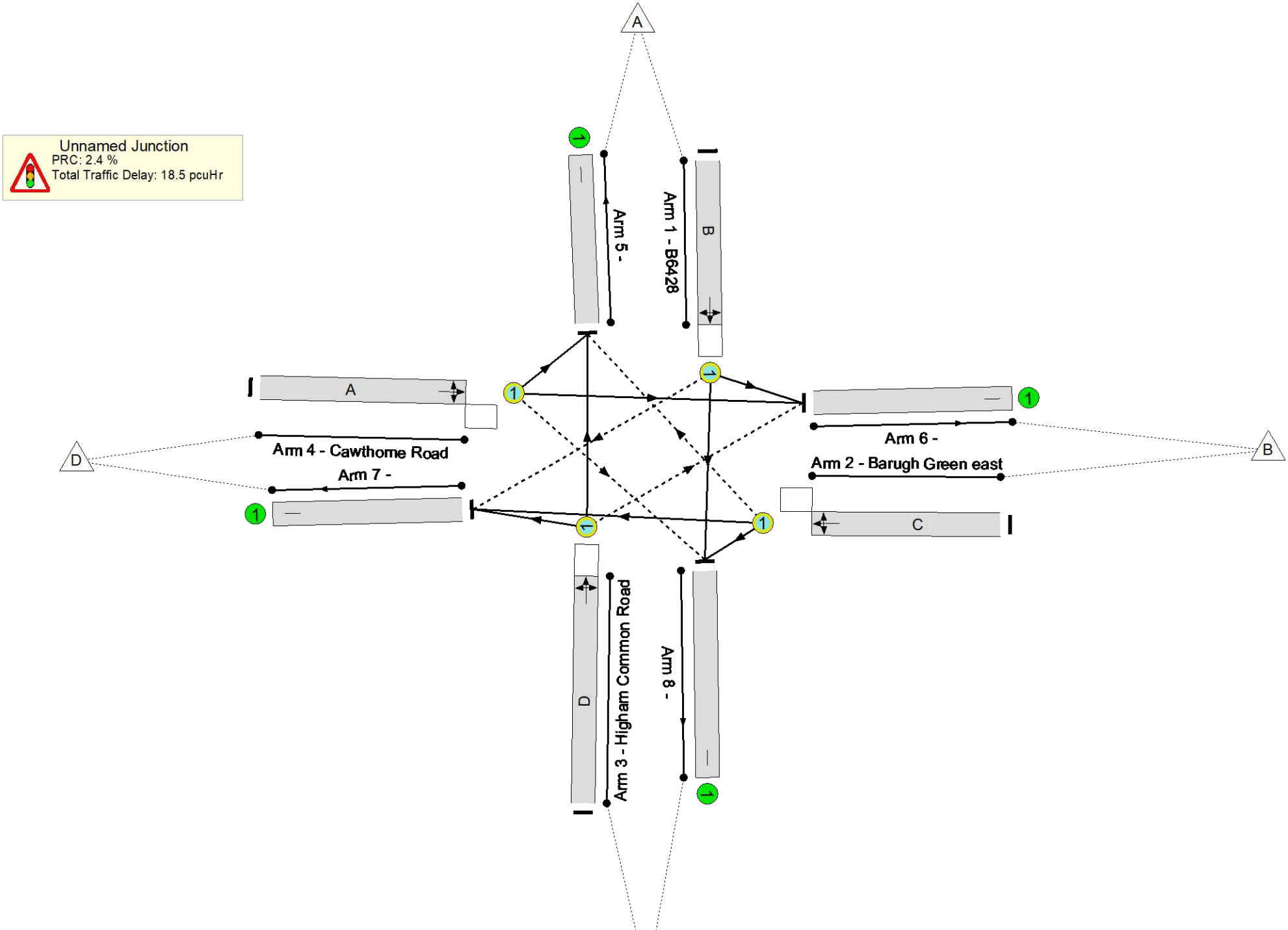
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.9%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.9%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	32	-	365	1832	415	87.9%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	35	-	648	1968	747	86.7%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	32	-	332	1849	543	61.2%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	35	-	323	1934	774	41.8%
5/1		U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	565	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%

Full Input Data And Results

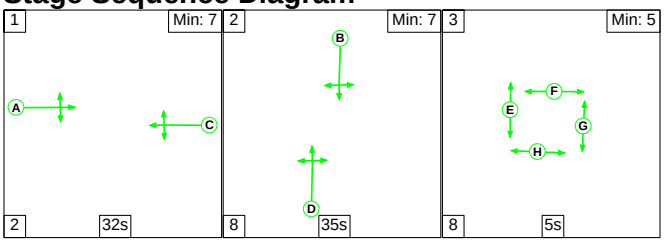
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**373**	**0**	**12**	**10.7**	**7.4**	**0.4**	**18.5**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**373**	**0**	**12**	**10.7**	**7.4**	**0.4**	**18.5**	**-**	**-**	**-**	**-**
1/1	365	365	112	0	10	2.4	3.2	0.1	5.8	57.0	7.7	3.2	10.9
2/1	648	648	166	0	0	4.5	3.1	0.2	7.7	42.9	14.9	3.1	18.0
3/1	332	332	68	0	2	2.0	0.8	0.0	2.9	31.1	6.6	0.8	7.4
4/1	323	323	27	0	0	1.7	0.4	0.1	2.2	24.1	5.7	0.4	6.1
5/1	525	525	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 2.4 Total Delay for Signalled Lanes (pcuHr): 18.53 Cycle Time (s): 90
PRC Over All Lanes (%): 2.4 Total Delay Over All Lanes(pcuHr): 18.53

Full Input Data And Results

Scenario 9: '2033 Full Dev AM' (FG9: '2033 Full Dev AM', Plan 1: 'Network Control Plan 1')

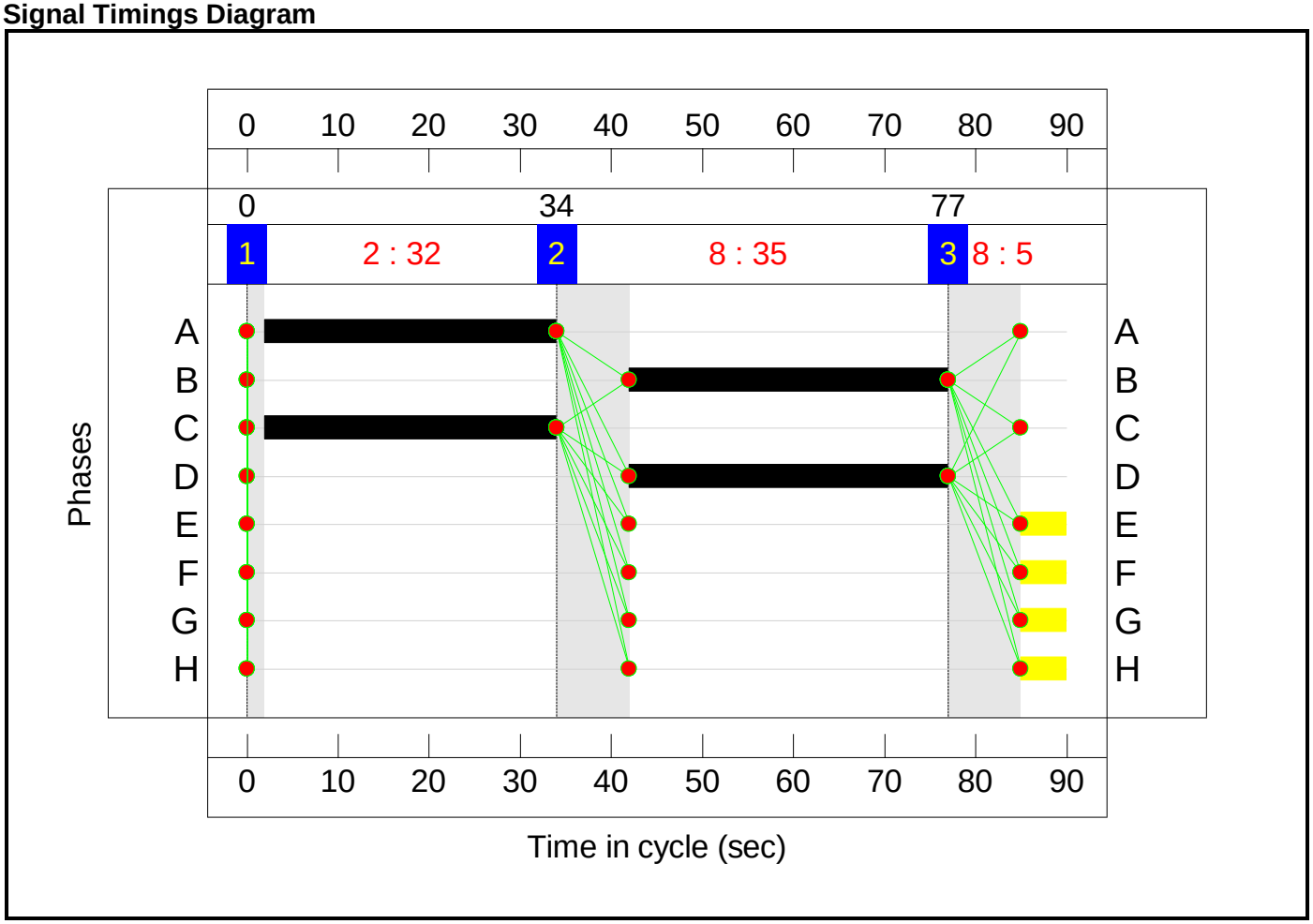
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	32	35	5
Change Point	0	34	77

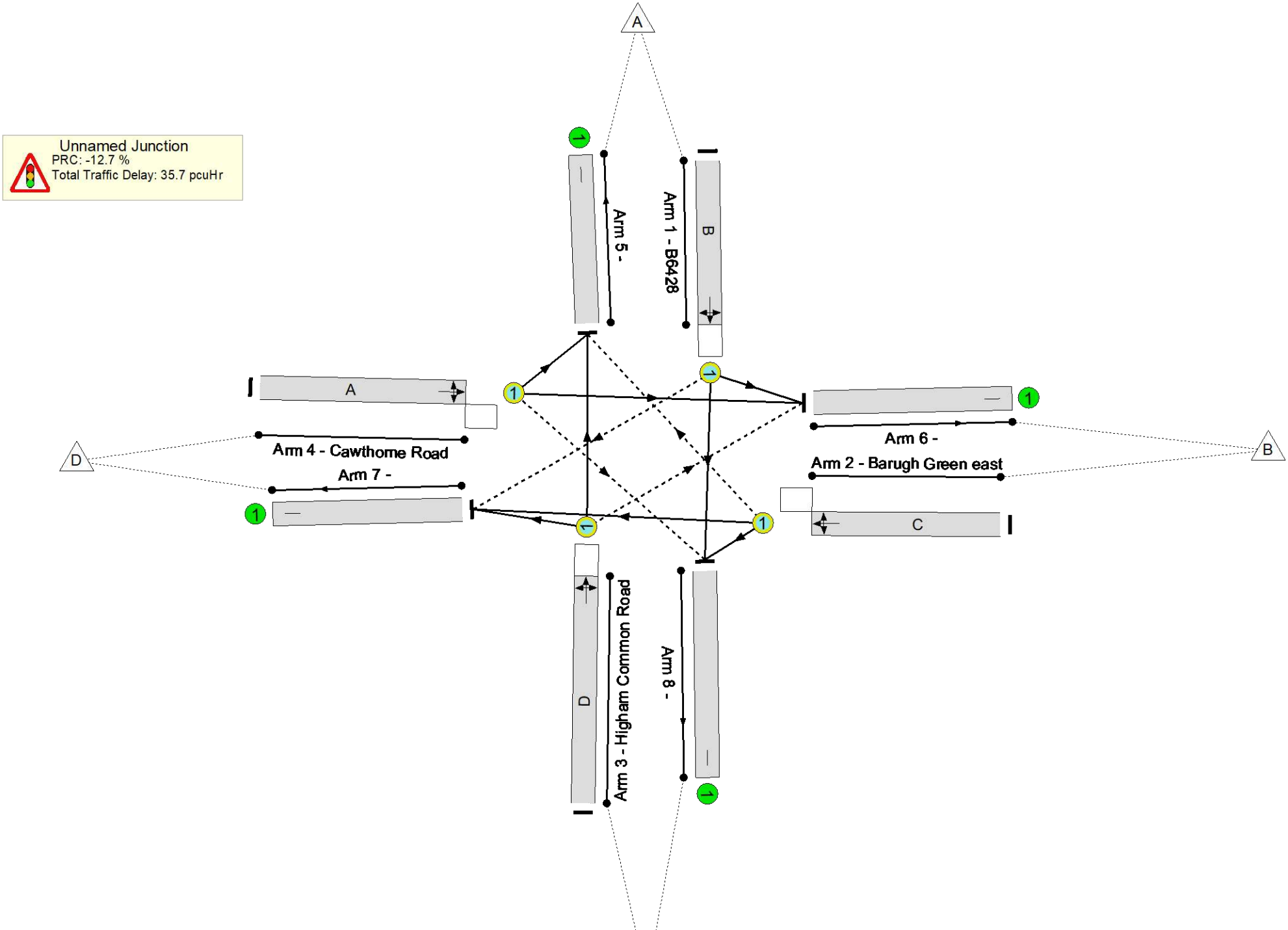
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**101.5%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**101.5%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	35	-	460	1782	626	73.4%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	32	-	402	1938	396	101.5%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	35	-	331	1831	335	98.8%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	32	-	548	1980	726	75.5%
5/1		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	715	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%

Full Input Data And Results

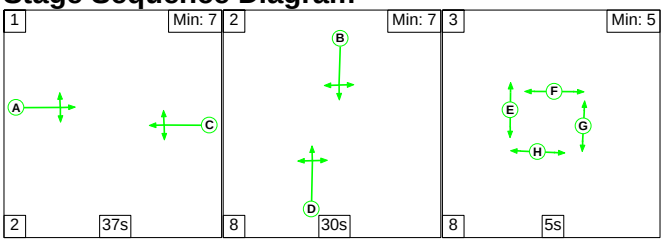
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**337**	**0**	**55**	**12.3**	**22.6**	**0.8**	**35.7**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**337**	**0**	**55**	**12.3**	**22.6**	**0.8**	**35.7**	**-**	**-**	**-**	**-**
1/1	460	460	108	0	2	2.8	1.4	0.0	4.2	32.8	9.2	1.4	10.6
2/1	402	396	106	0	23	3.3	11.6	0.5	15.3	137.2	10.2	11.6	21.8
3/1	331	331	97	0	29	2.5	8.2	0.2	10.8	118.0	8.2	8.2	16.3
4/1	548	548	26	0	1	3.8	1.5	0.0	5.3	35.0	11.9	1.5	13.4
5/1	456	456	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	715	715	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	323	323	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	241	241	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -12.7 Total Delay for Signalled Lanes (pcuHr): 35.68 Cycle Time (s): 90
PRC Over All Lanes (%): -12.7 Total Delay Over All Lanes(pcuHr): 35.68

Full Input Data And Results

Scenario 10: '2033 Full Dev PM' (FG10: '2033 Full Dev PM', Plan 1: 'Network Control Plan 1')

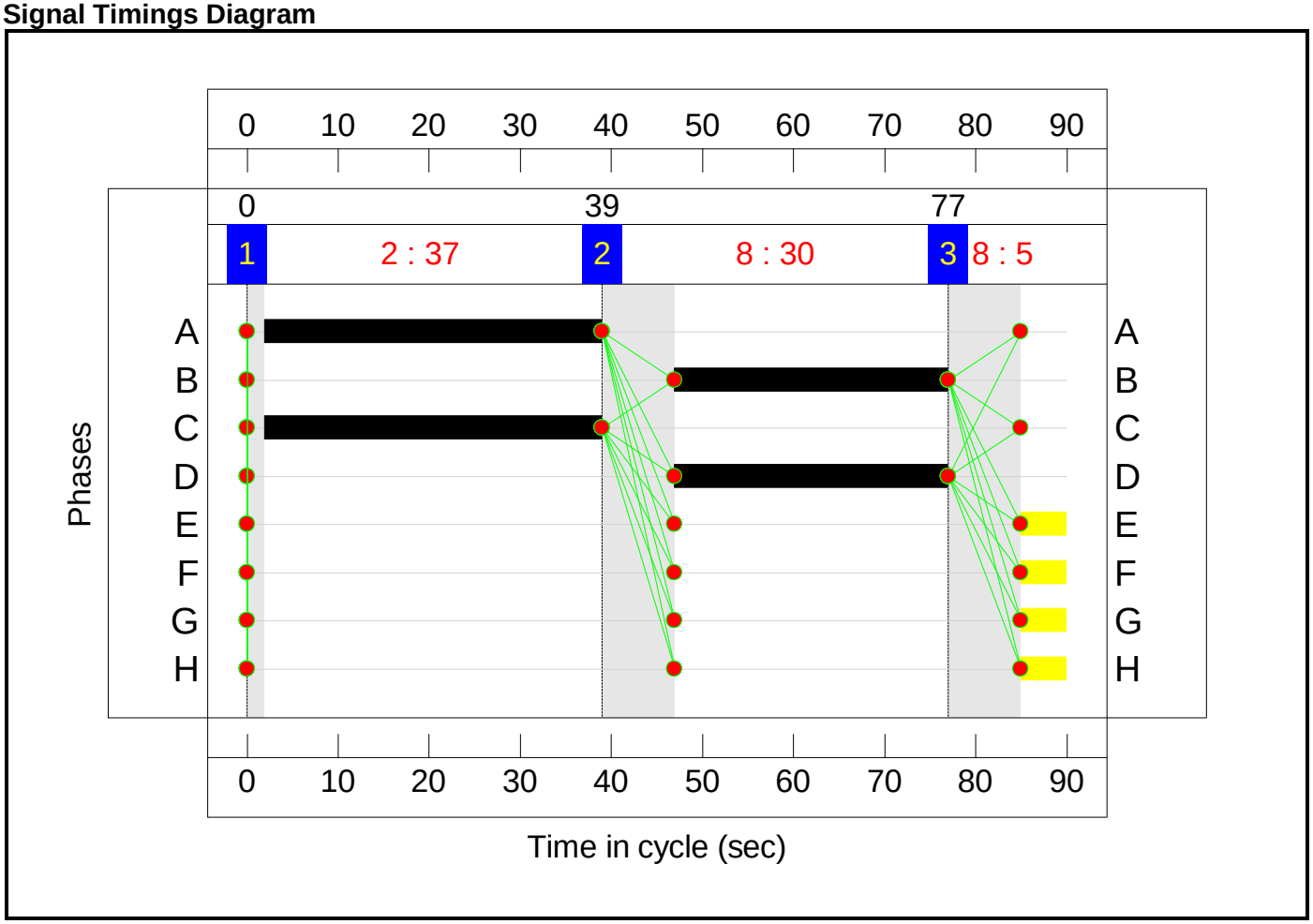
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	37	30	5
Change Point	0	39	77

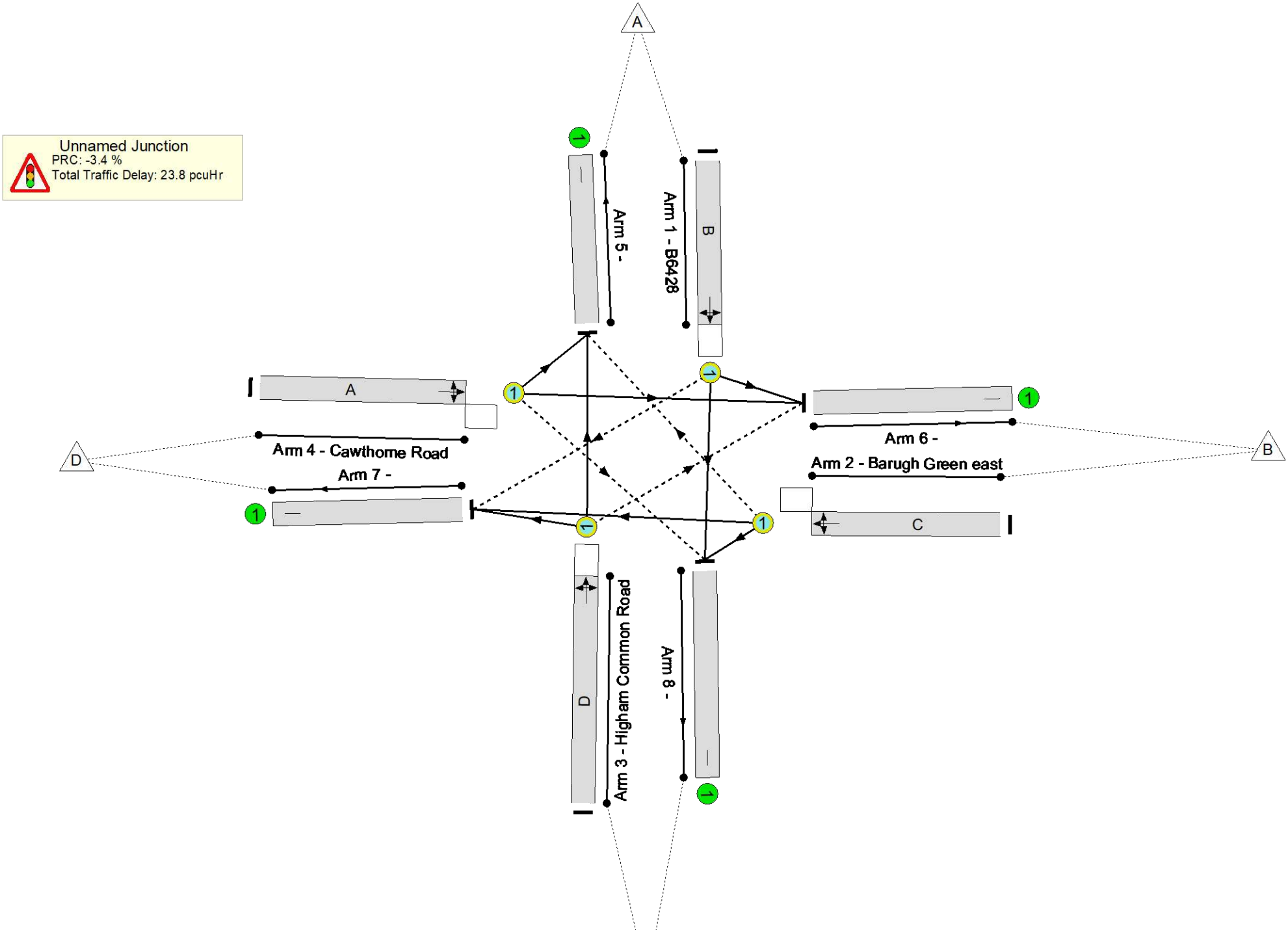
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**93.1%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**93.1%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	30	-	430	1788	462	93.1%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	37	-	654	1964	710	92.2%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	30	-	310	1837	432	71.8%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	37	-	347	1937	818	42.4%
5/1		U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	485	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	116	Inf	Inf	0.0%

Full Input Data And Results

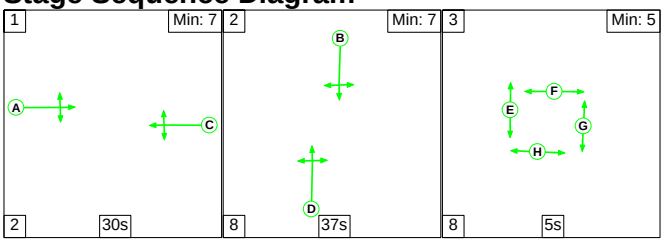
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**490**	**0**	**18**	**11.7**	**11.7**	**0.5**	**23.8**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**490**	**0**	**18**	**11.7**	**11.7**	**0.5**	**23.8**	**-**	**-**	**-**	**-**
1/1	430	430	125	0	16	3.2	5.1	0.1	8.4	70.2	9.8	5.1	14.9
2/1	654	654	252	0	0	4.7	5.0	0.3	9.9	54.7	15.6	5.0	20.6
3/1	310	310	82	0	2	2.0	1.2	0.1	3.4	39.0	6.5	1.2	7.7
4/1	347	347	31	0	0	1.8	0.4	0.0	2.1	22.2	6.1	0.4	6.4
5/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	485	485	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	561	561	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	116	116	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -3.4 Total Delay for Signalled Lanes (pcuHr): 23.82 Cycle Time (s): 90
PRC Over All Lanes (%): -3.4 Total Delay Over All Lanes(pcuHr): 23.82

Full Input Data And Results

Scenario 11: '2026 Resi P1A AM' (FG11: '2026 Resi P1A AM', Plan 1: 'Network Control Plan 1')

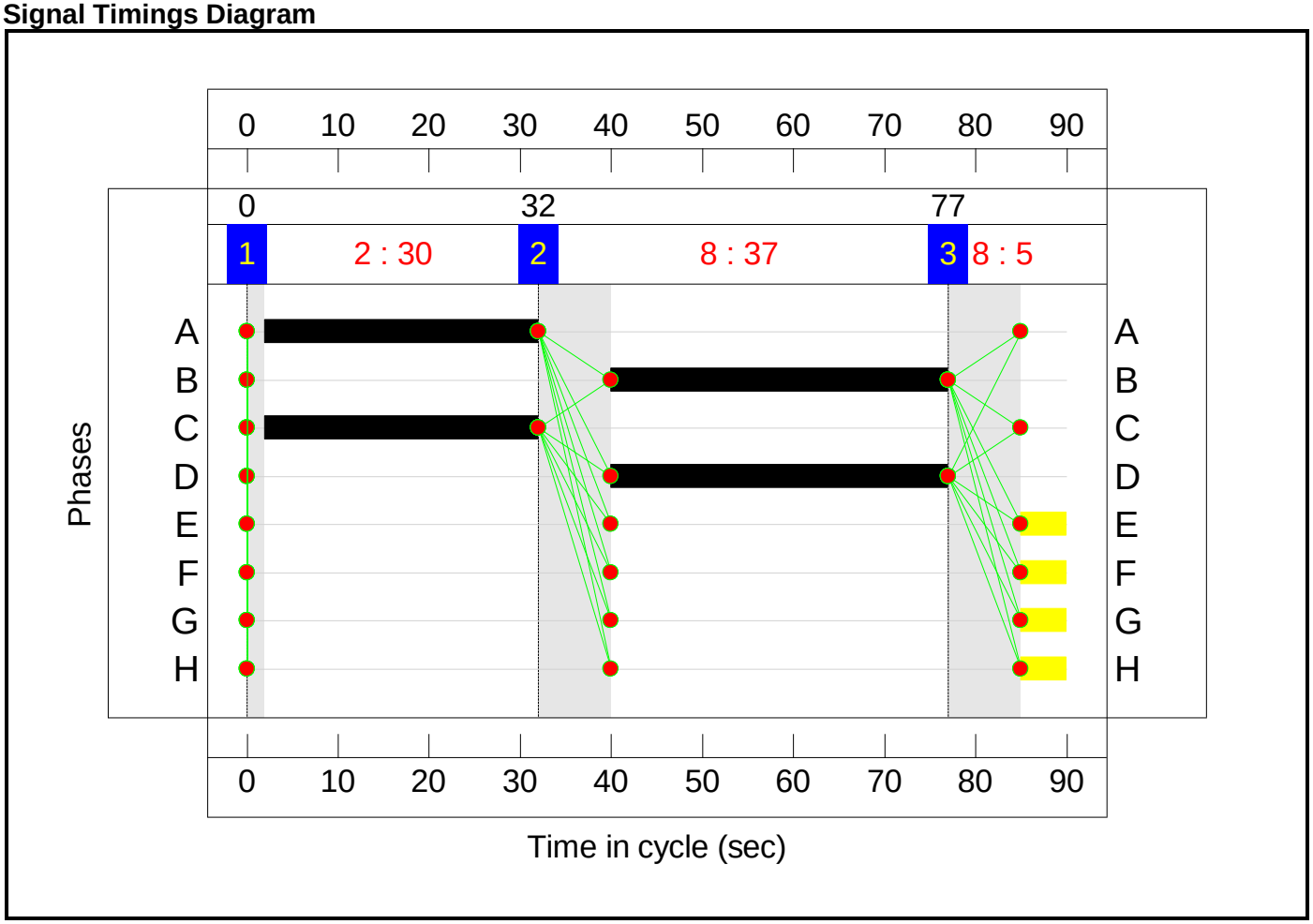
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	30	37	5
Change Point	0	32	77

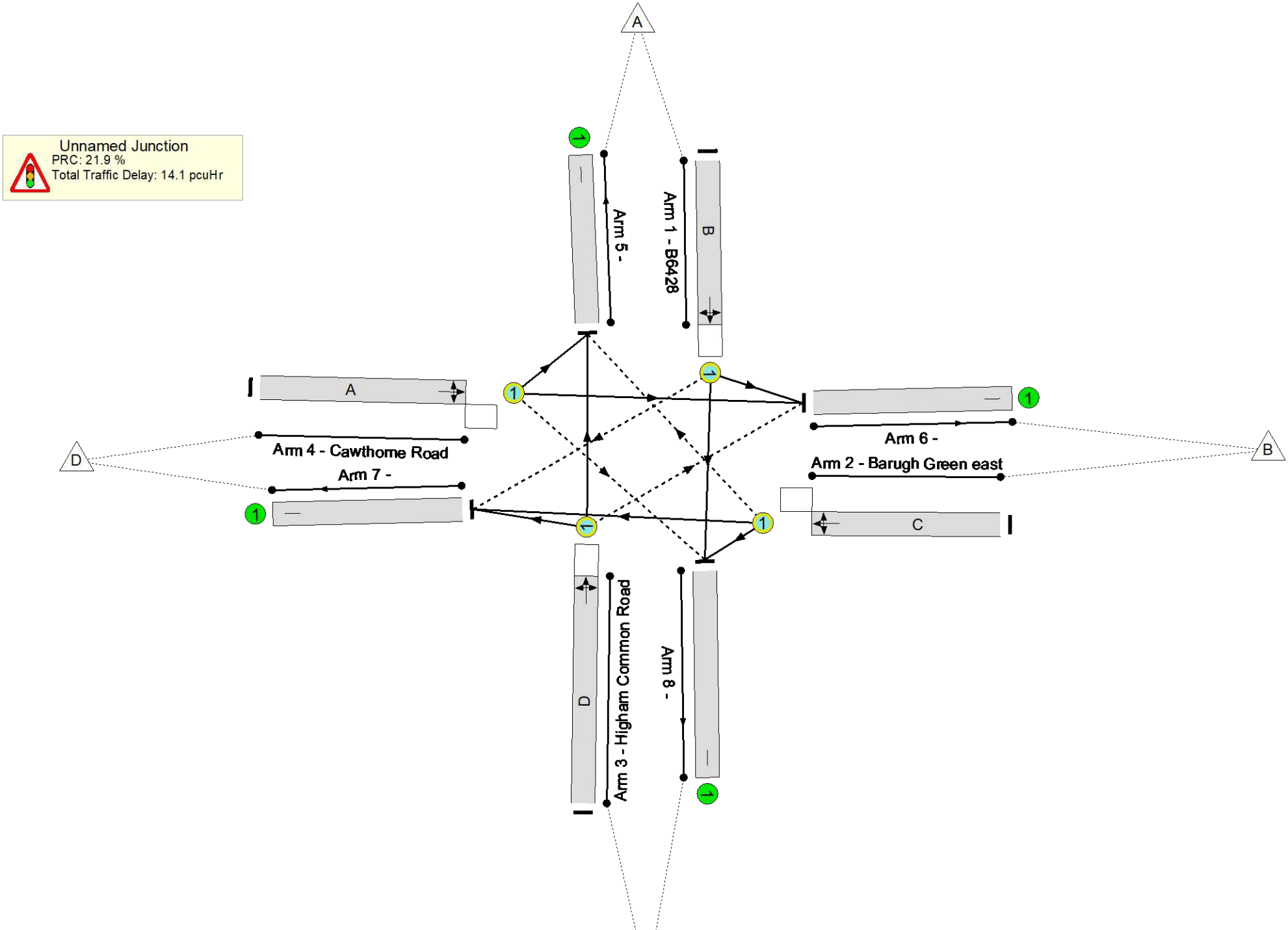
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.9%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.9%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	37	-	390	1822	560	69.6%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	30	-	291	1947	639	45.5%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	37	-	335	1842	472	70.9%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	30	-	505	1985	684	73.9%
5/1		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	516	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	286	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	346	Inf	Inf	0.0%

Full Input Data And Results

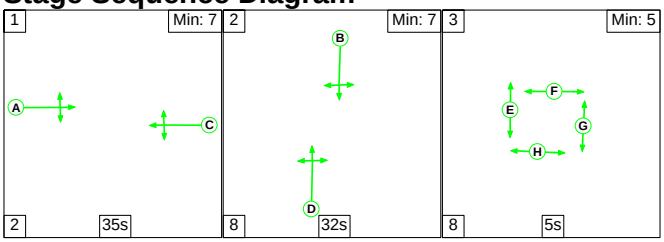
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**260**	**0**	**4**	**9.6**	**4.1**	**0.3**	**14.1**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**260**	**0**	**4**	**9.6**	**4.1**	**0.3**	**14.1**	**-**	**-**	**-**	**-**
1/1	390	390	95	0	2	2.1	1.1	0.0	3.2	30.0	7.1	1.1	8.3
2/1	291	291	41	0	0	1.8	0.4	0.2	2.4	29.8	5.6	0.4	6.0
3/1	335	335	94	0	2	2.0	1.2	0.1	3.4	36.2	7.4	1.2	8.5
4/1	505	505	30	0	0	3.6	1.4	0.0	5.1	36.0	11.1	1.4	12.5
5/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	516	516	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	286	286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	346	346	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 21.9 Total Delay for Signalled Lanes (pcuHr): 14.08 Cycle Time (s): 90
PRC Over All Lanes (%): 21.9 Total Delay Over All Lanes(pcuHr): 14.08

Full Input Data And Results

Scenario 12: '2026 Resi P1A PM' (FG12: '2026 Resi P1A PM', Plan 1: 'Network Control Plan 1')

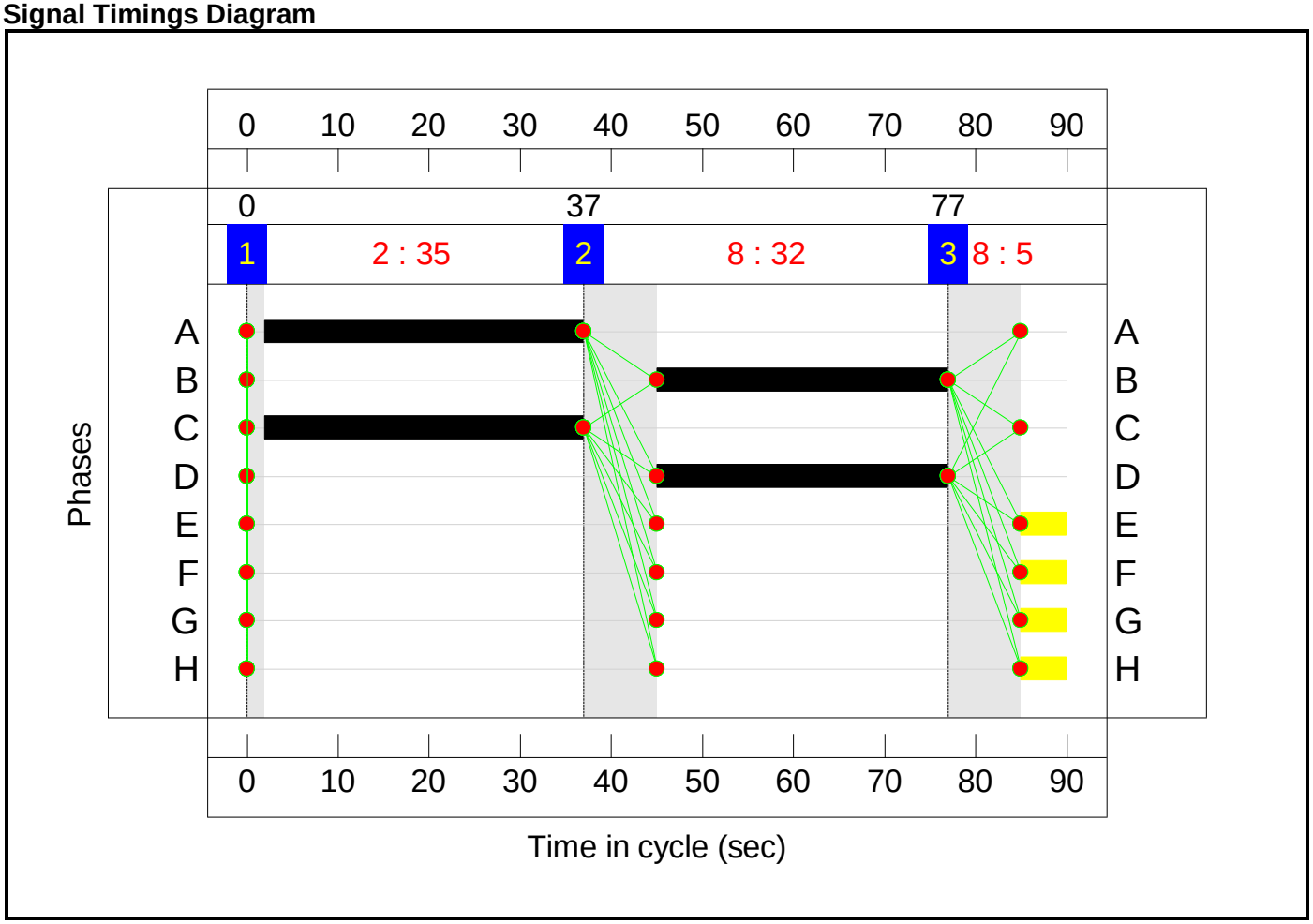
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	35	32	5
Change Point	0	37	77

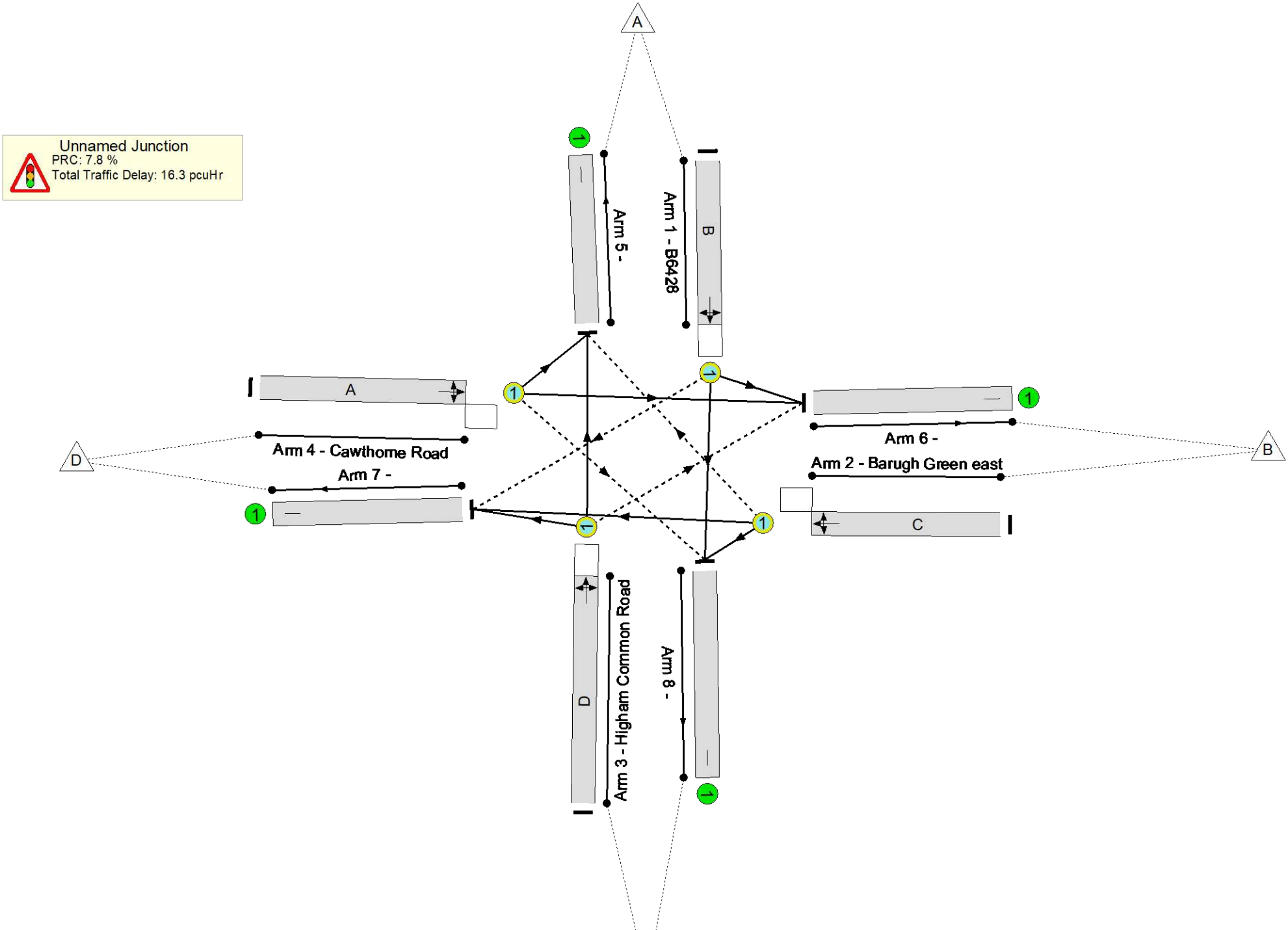
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.5%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.5%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	32	-	351	1829	439	79.9%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	35	-	630	1964	755	83.5%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	32	-	335	1842	502	66.7%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	35	-	308	1934	774	39.8%
5/1		U	N/A	N/A	-		-	-	-	500	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%

Full Input Data And Results

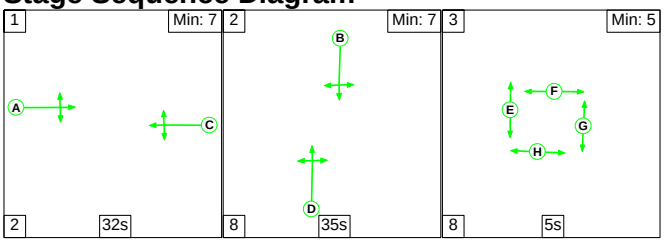
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**383**	**0**	**5**	**10.3**	**5.7**	**0.4**	**16.3**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**383**	**0**	**5**	**10.3**	**5.7**	**0.4**	**16.3**	**-**	**-**	**-**	**-**
1/1	351	351	112	0	3	2.2	1.9	0.1	4.2	43.4	7.1	1.9	9.0
2/1	630	630	160	0	0	4.3	2.4	0.1	6.8	39.1	14.2	2.4	16.6
3/1	335	335	86	0	2	2.1	1.0	0.1	3.2	34.1	7.0	1.0	8.0
4/1	308	308	25	0	0	1.6	0.3	0.1	2.0	23.8	5.5	0.3	5.8
5/1	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	315	315	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 7.8 Total Delay for Signalled Lanes (pcuHr): 16.28 Cycle Time (s): 90
PRC Over All Lanes (%): 7.8 Total Delay Over All Lanes(pcuHr): 16.28

Full Input Data And Results

Scenario 13: '2033 Full Resi AM' (FG13: '2033 Full Resi AM', Plan 1: 'Network Control Plan 1')

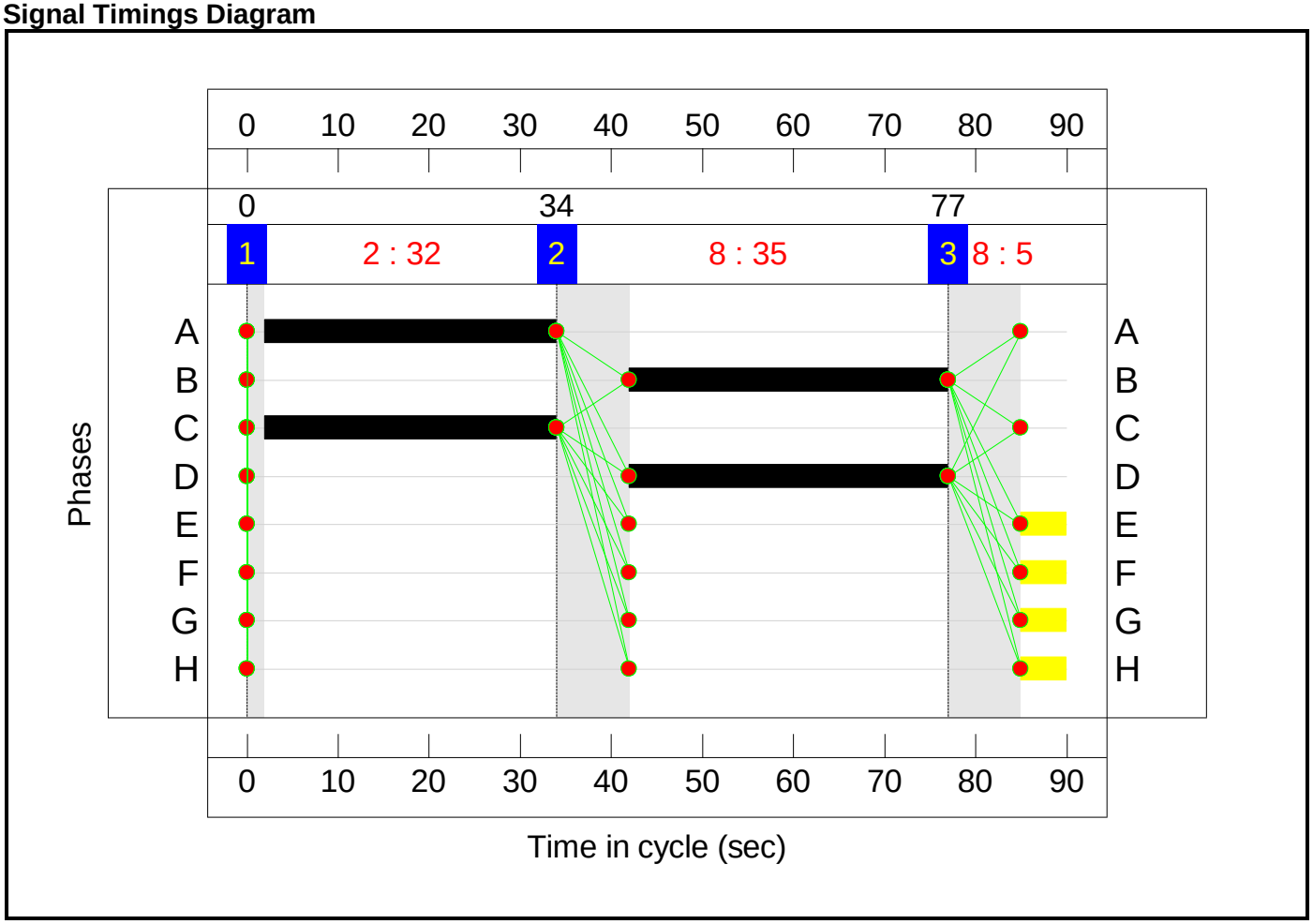
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	32	35	5
Change Point	0	34	77

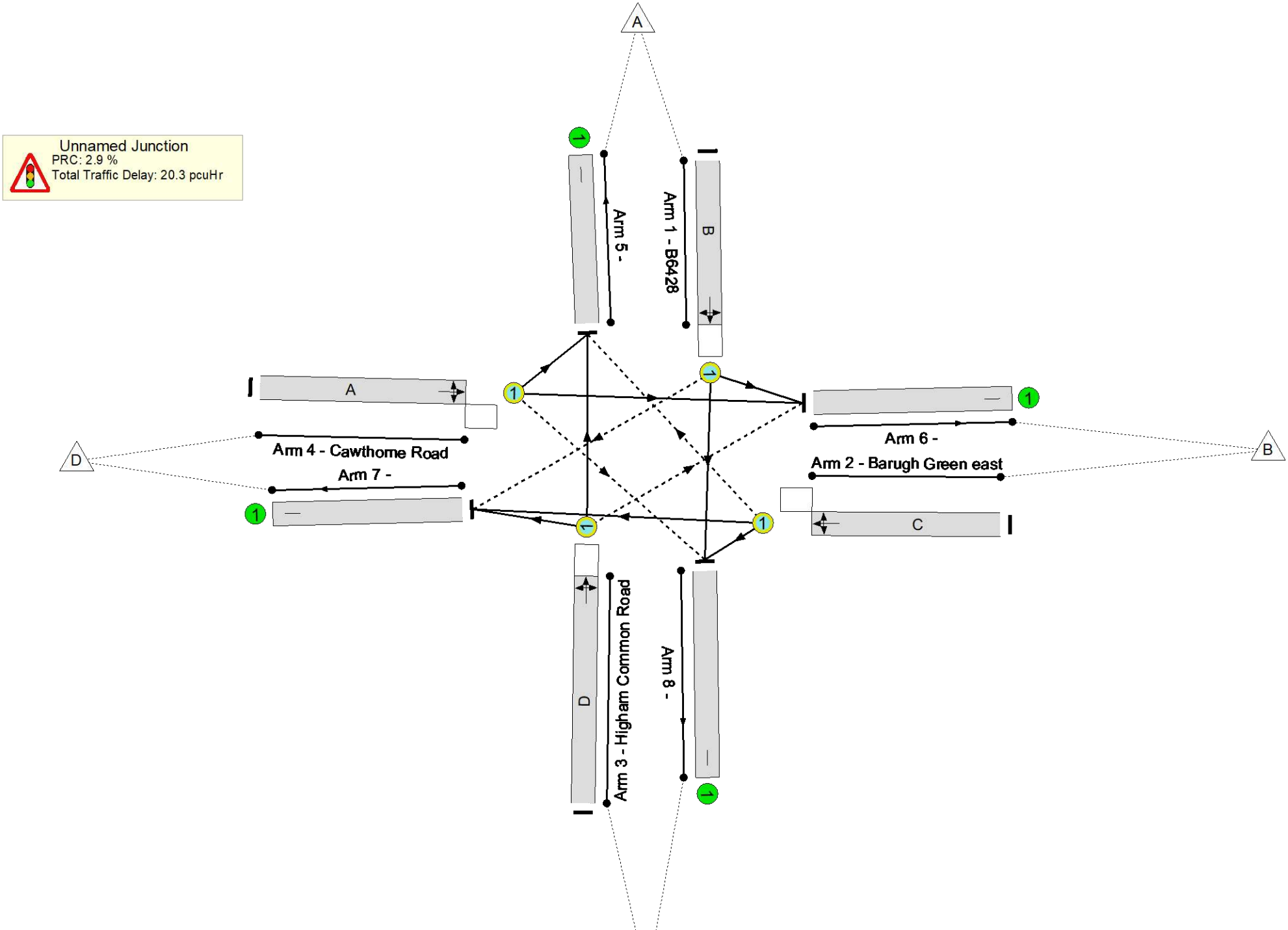
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.5%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.5%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	35	-	429	1790	603	71.2%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	32	-	380	1940	435	87.5%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	35	-	331	1831	385	86.0%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	32	-	532	1978	725	73.4%
5/1		U	N/A	N/A	-		-	-	-	443	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%

Full Input Data And Results

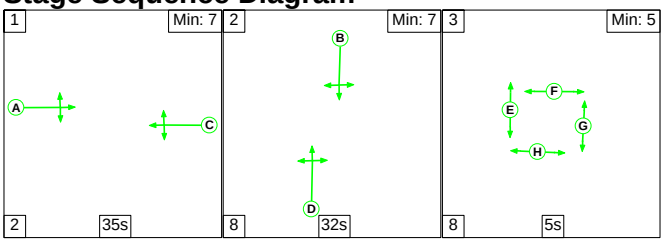
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**367**	**0**	**12**	**11.1**	**8.5**	**0.7**	**20.3**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**367**	**0**	**12**	**11.1**	**8.5**	**0.7**	**20.3**	**-**	**-**	**-**	**-**
1/1	429	429	108	0	2	2.5	1.2	0.0	3.8	31.9	8.5	1.2	9.7
2/1	380	380	116	0	0	2.6	3.1	0.5	6.2	58.8	9.1	3.1	12.2
3/1	331	331	116	0	10	2.3	2.8	0.2	5.3	57.2	7.8	2.8	10.6
4/1	532	532	27	0	0	3.6	1.4	0.0	5.0	34.0	11.4	1.4	12.7
5/1	443	443	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	668	668	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 2.9 Total Delay for Signalled Lanes (pcuHr): 20.29 Cycle Time (s): 90
PRC Over All Lanes (%): 2.9 Total Delay Over All Lanes(pcuHr): 20.29

Full Input Data And Results

Scenario 14: '2033 Full Resi PM' (FG14: '2033 Full Resi PM', Plan 1: 'Network Control Plan 1')

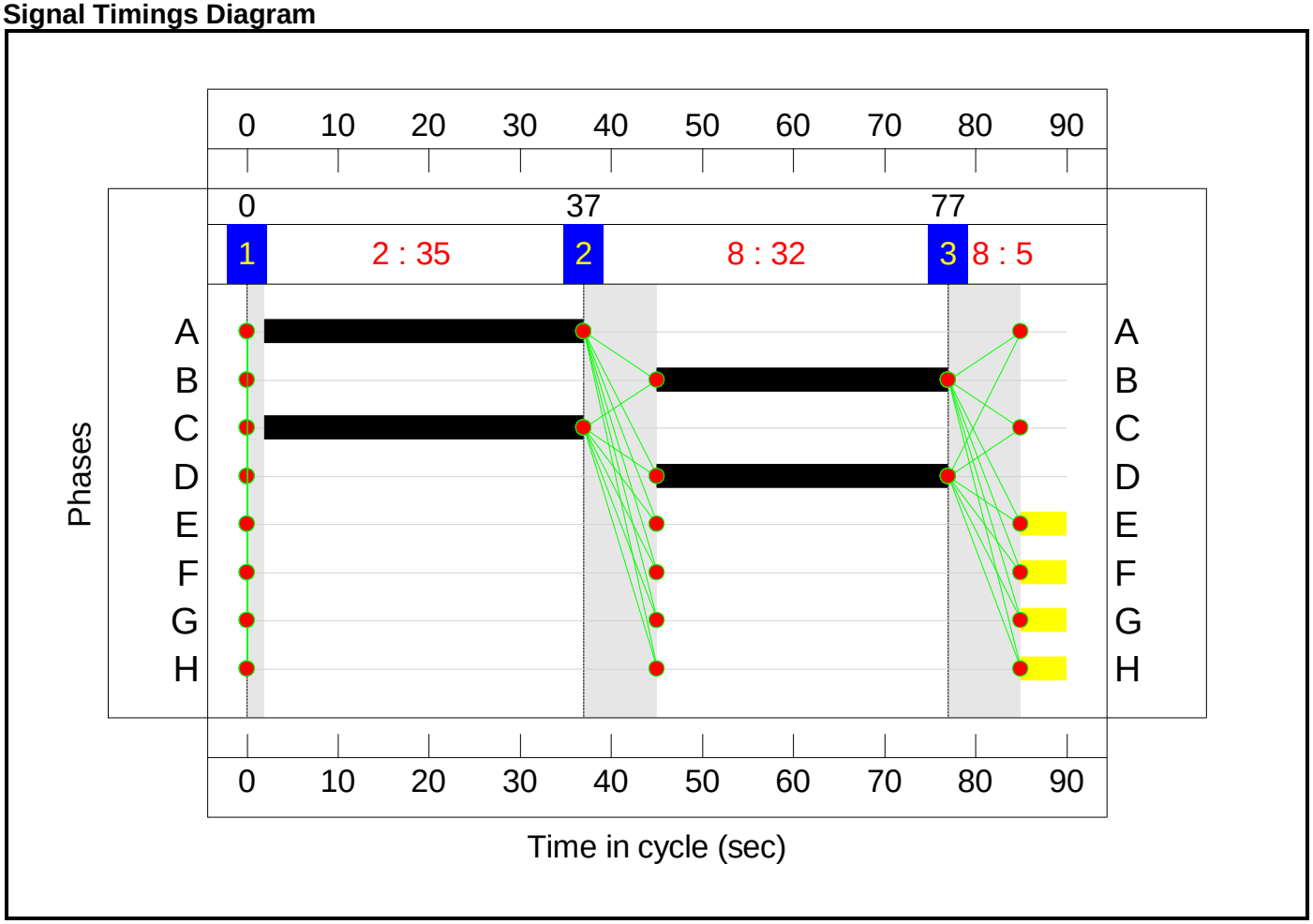
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	35	32	5
Change Point	0	37	77

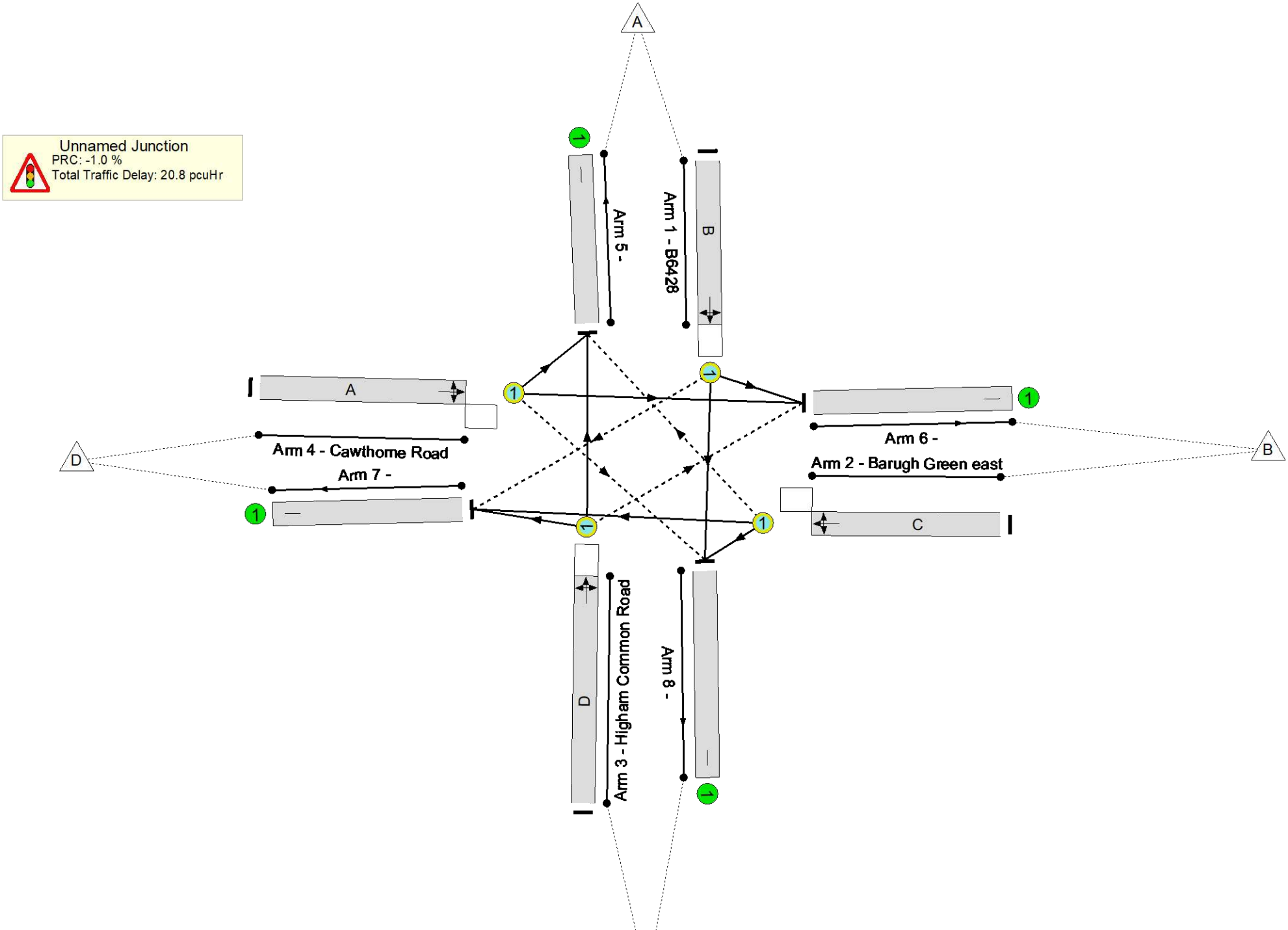
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**90.9%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**90.9%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	32	-	418	1791	469	89.1%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	35	-	615	1967	677	90.9%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	32	-	310	1837	487	63.7%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	35	-	341	1935	774	44.1%
5/1		U	N/A	N/A	-		-	-	-	553	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	467	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	116	Inf	Inf	0.0%

Full Input Data And Results

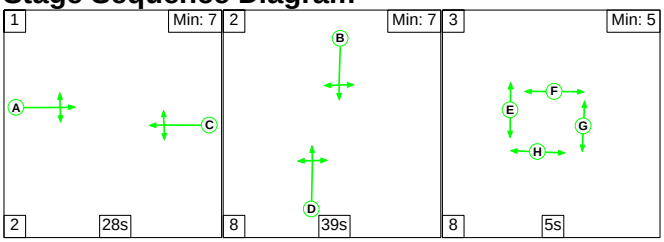
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**470**	**0**	**12**	**11.1**	**9.2**	**0.5**	**20.8**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**470**	**0**	**12**	**11.1**	**9.2**	**0.5**	**20.8**	**-**	**-**	**-**	**-**
1/1	418	418	131	0	10	2.9	3.6	0.1	6.6	56.5	9.2	3.6	12.7
2/1	615	615	226	0	0	4.5	4.4	0.3	9.1	53.5	14.5	4.4	18.9
3/1	310	310	82	0	2	1.9	0.9	0.1	2.8	32.8	6.1	0.9	7.0
4/1	341	341	31	0	0	1.9	0.4	0.0	2.3	24.0	6.2	0.4	6.5
5/1	553	553	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	116	116	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -1.0 Total Delay for Signalled Lanes (pcuHr): 20.78 Cycle Time (s): 90
PRC Over All Lanes (%): -1.0 Total Delay Over All Lanes(pcuHr): 20.78

Full Input Data And Results

Scenario 15: '2026 Emp AM' (FG15: '2026 Emp AM', Plan 1: 'Network Control Plan 1')

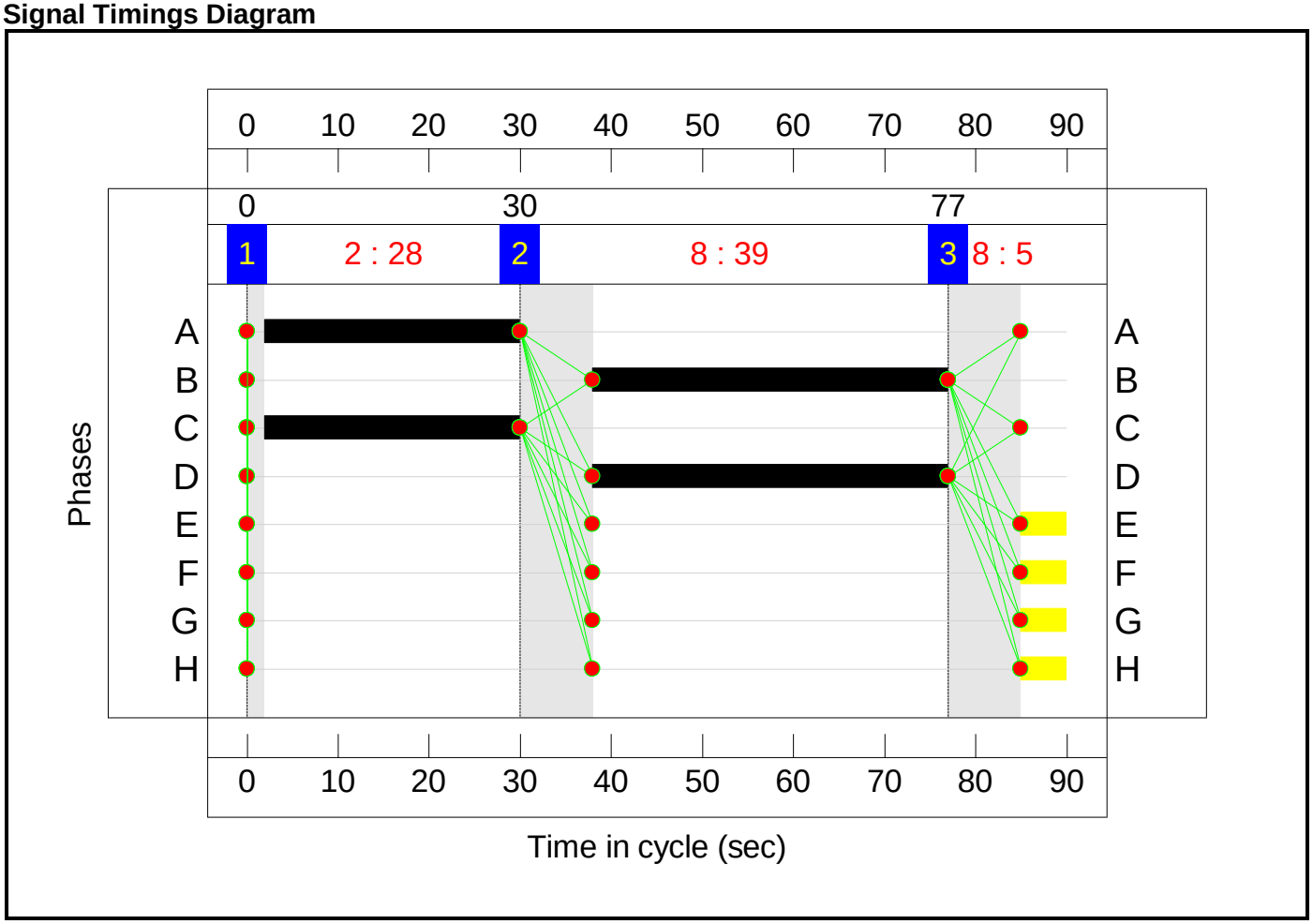
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	28	39	5
Change Point	0	30	77

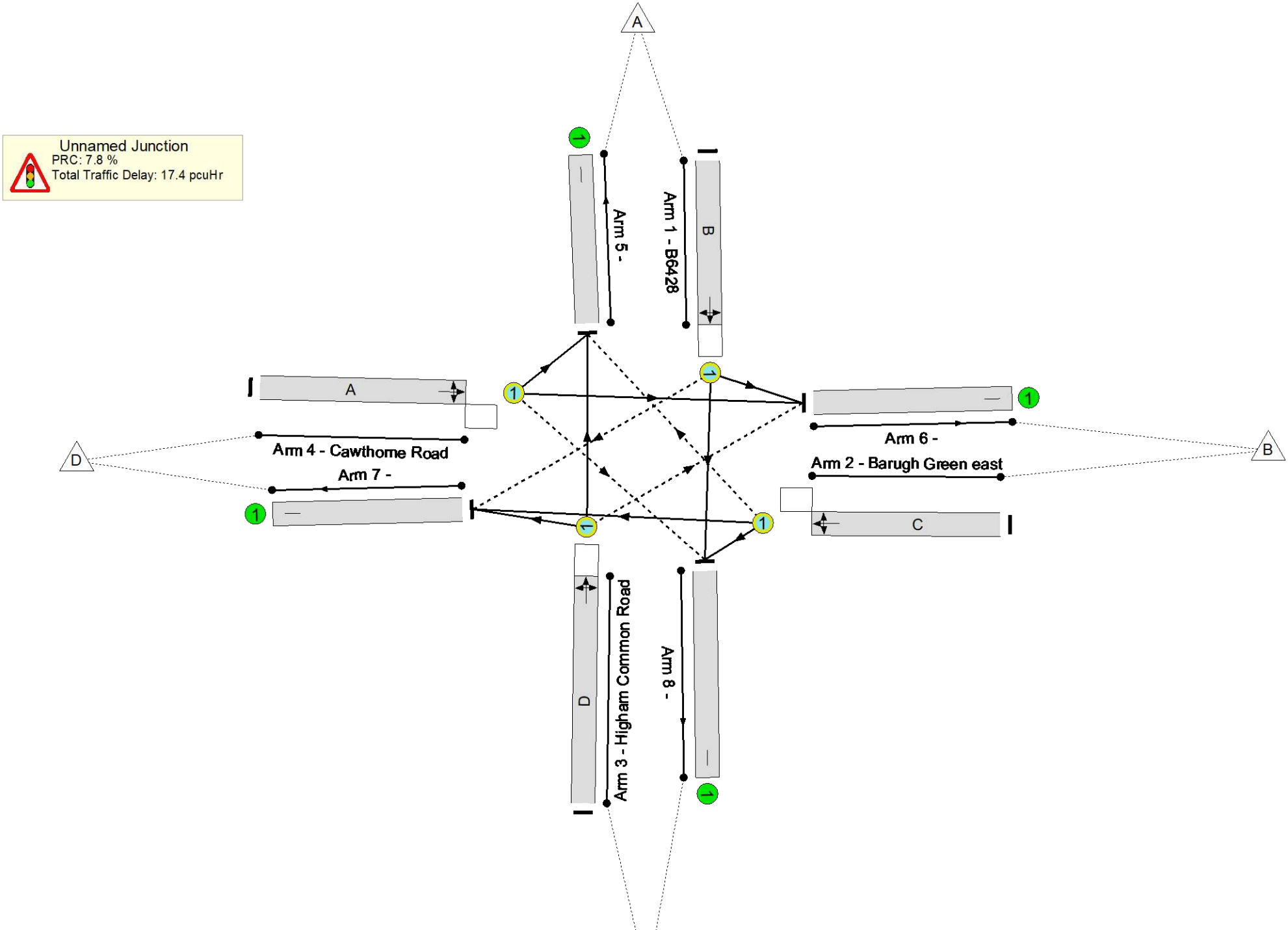
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.5%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.5%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	39	-	420	1821	605	69.4%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	28	-	315	1933	603	52.2%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	39	-	378	1836	453	83.5%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	28	-	519	1982	639	81.3%
5/1		U	N/A	N/A	-		-	-	-	382	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	290	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	426	Inf	Inf	0.0%

Full Input Data And Results

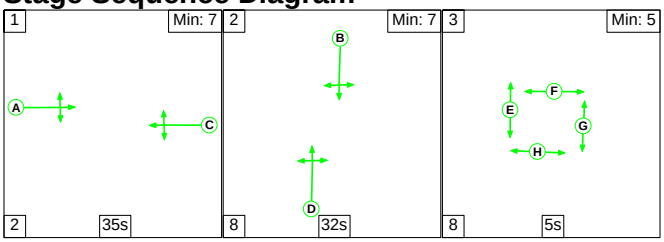
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**289**	**0**	**5**	**10.8**	**6.1**	**0.4**	**17.4**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**289**	**0**	**5**	**10.8**	**6.1**	**0.4**	**17.4**	**-**	**-**	**-**	**-**
1/1	420	420	95	0	2	2.1	1.1	0.0	3.3	27.9	7.6	1.1	8.7
2/1	315	315	35	0	0	2.2	0.5	0.1	2.9	32.6	6.3	0.5	6.8
3/1	378	378	114	0	3	2.5	2.4	0.2	5.1	48.3	8.8	2.4	11.2
4/1	519	519	45	0	0	4.0	2.1	0.0	6.2	42.9	11.8	2.1	13.9
5/1	382	382	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	426	426	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 7.8 Total Delay for Signalled Lanes (pcuHr): 17.36 Cycle Time (s): 90
PRC Over All Lanes (%): 7.8 Total Delay Over All Lanes(pcuHr): 17.36

Full Input Data And Results

Scenario 16: '2026 Emp PM' (FG16: '2026 Emp PM', Plan 1: 'Network Control Plan 1')

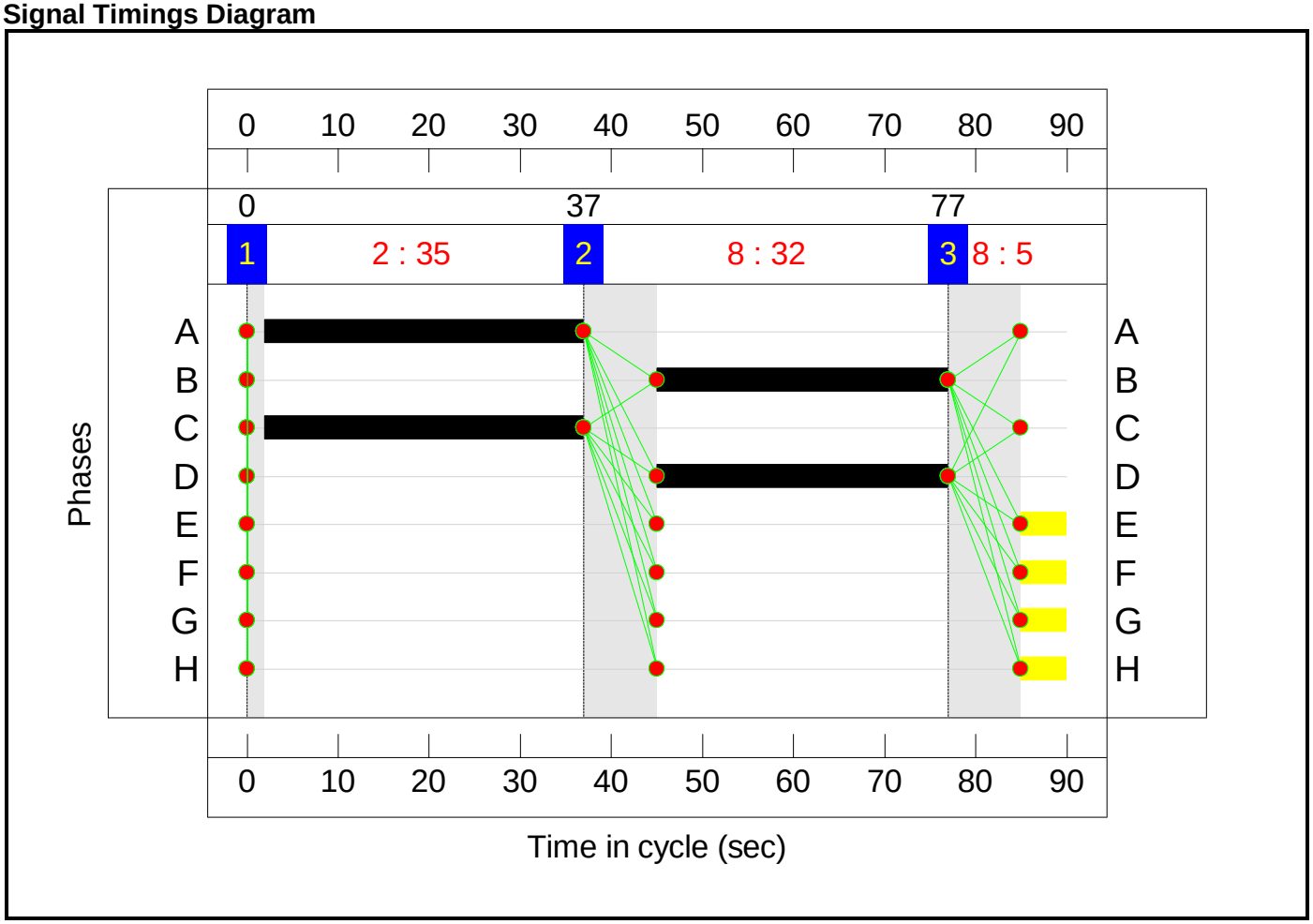
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	35	32	5
Change Point	0	37	77

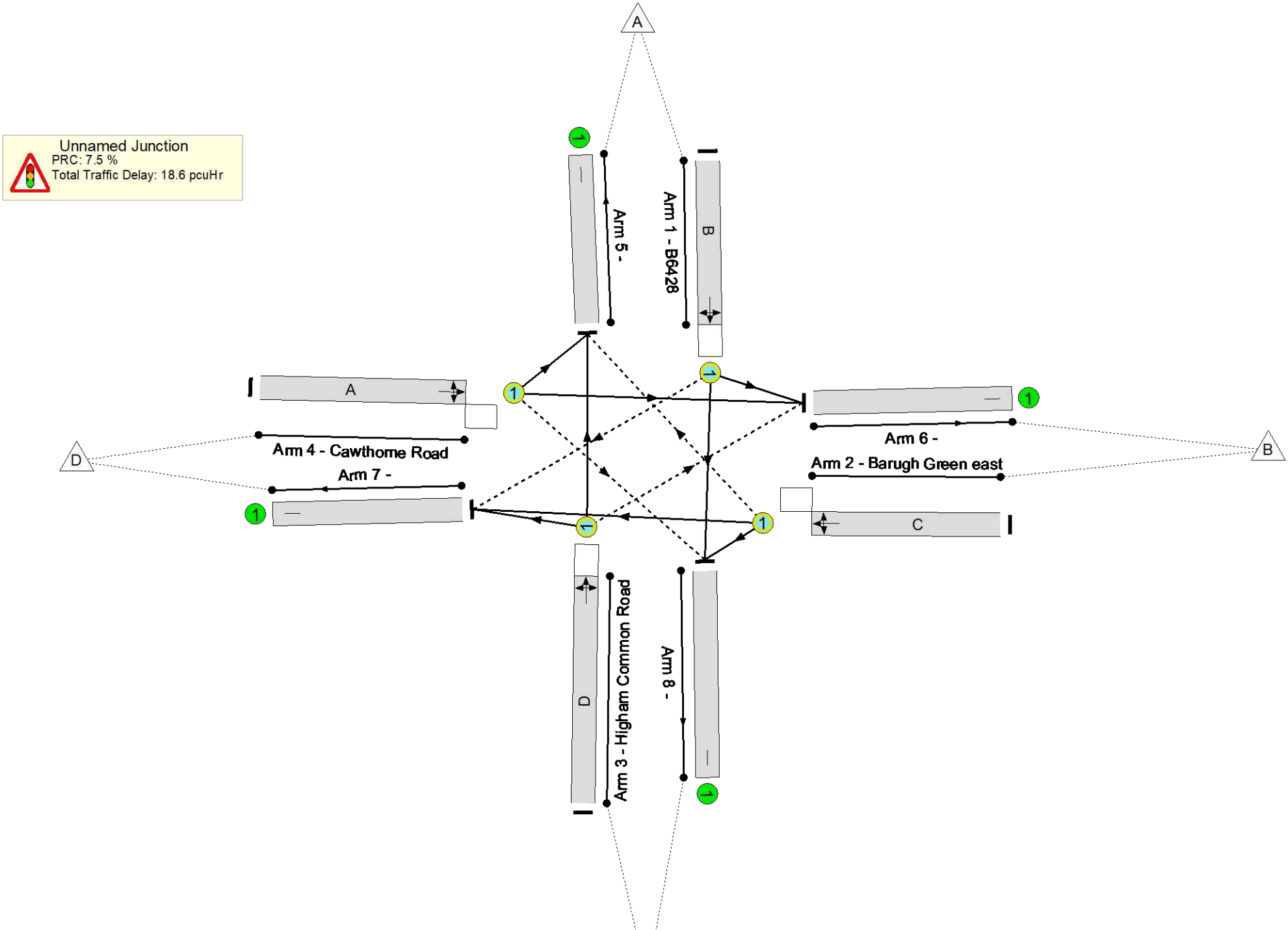
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.7%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.7%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	32	-	356	1831	434	82.1%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	35	-	633	1962	756	83.7%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	32	-	396	1834	481	82.4%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	35	-	312	1933	772	40.4%
5/1		U	N/A	N/A	-		-	-	-	523	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	329	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	544	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%

Full Input Data And Results

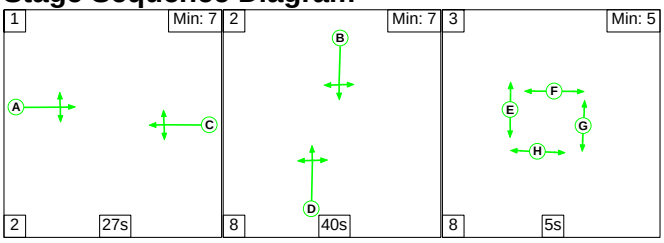
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**409**	**0**	**5**	**11.0**	**7.2**	**0.4**	**18.6**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**409**	**0**	**5**	**11.0**	**7.2**	**0.4**	**18.6**	**-**	**-**	**-**	**-**
1/1	356	356	112	0	3	2.3	2.2	0.1	4.5	45.5	7.2	2.2	9.4
2/1	633	633	157	0	0	4.3	2.5	0.1	6.9	39.3	14.2	2.5	16.7
3/1	396	396	109	0	2	2.8	2.2	0.1	5.1	46.2	9.1	2.2	11.3
4/1	312	312	31	0	0	1.7	0.3	0.1	2.1	24.3	5.5	0.3	5.9
5/1	523	523	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	329	329	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	544	544	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 7.5 Total Delay for Signalled Lanes (pcuHr): 18.60 Cycle Time (s): 90
PRC Over All Lanes (%): 7.5 Total Delay Over All Lanes(pcuHr): 18.60

Full Input Data And Results

Scenario 17: '2026 P1 (Without Link Road) AM' (FG17: '2026 P1 (Without Link Road) AM', Plan 1: 'Network Control Plan 1')

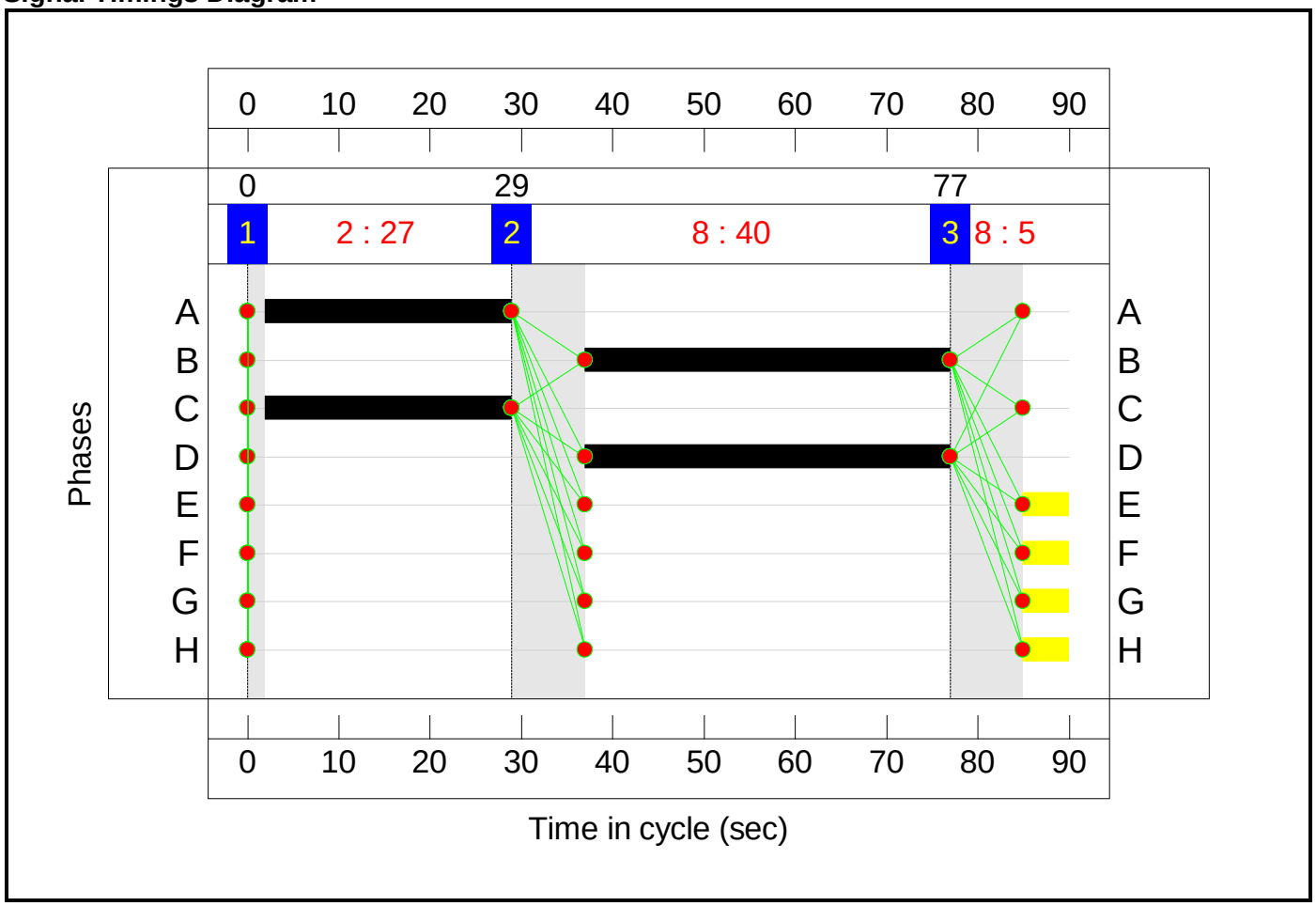
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	27	40	5
Change Point	0	29	77

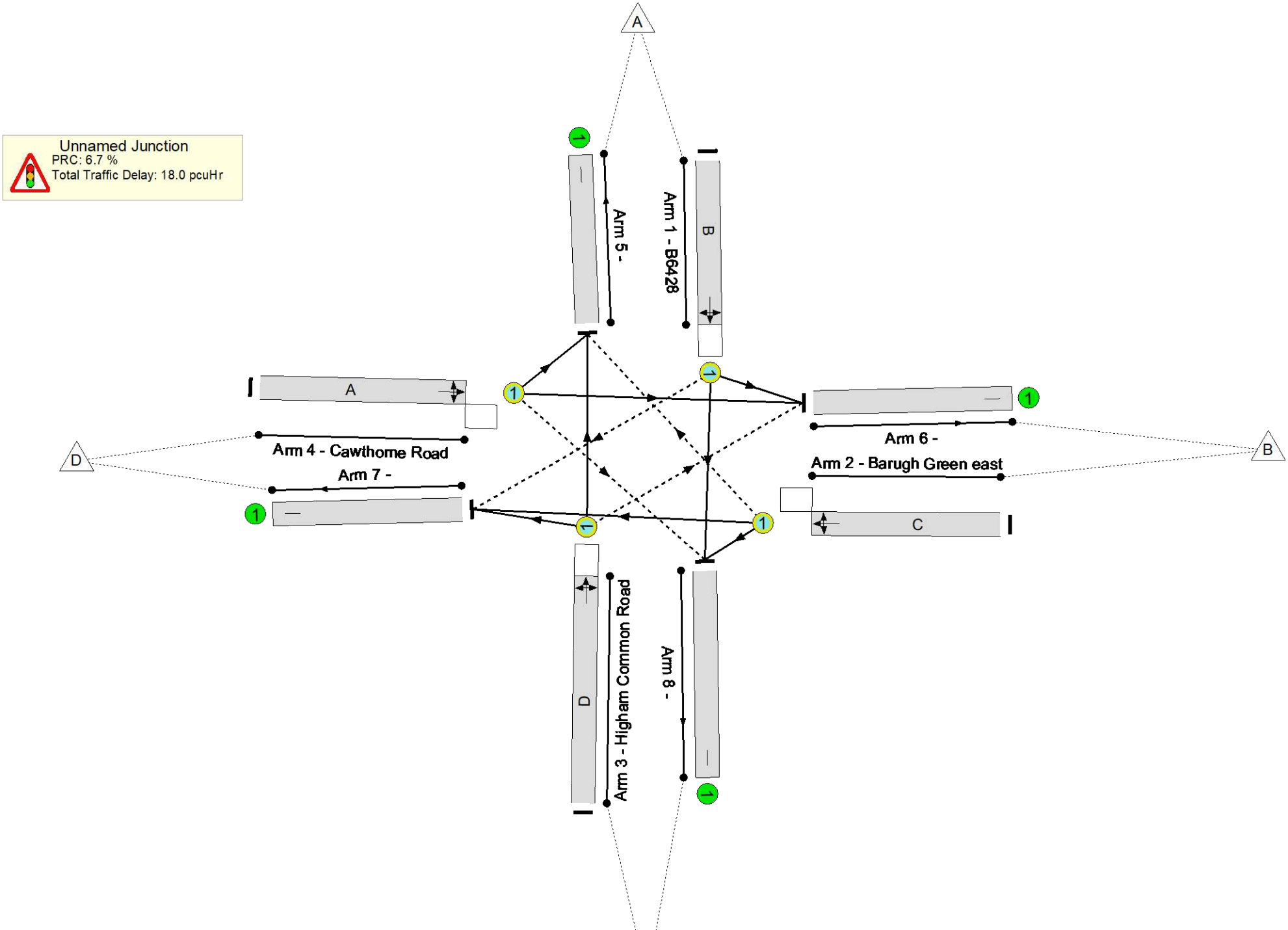
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**84.3%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**84.3%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	40	-	422	1820	624	67.6%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	27	-	346	1925	575	60.1%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	40	-	384	1834	474	81.0%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	27	-	520	1982	617	84.3%
5/1		U	N/A	N/A	-		-	-	-	388	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	543	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	293	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	448	Inf	Inf	0.0%

Full Input Data And Results

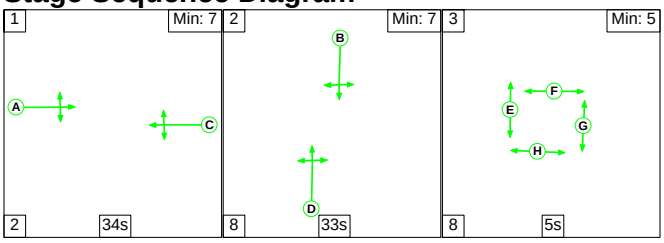
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**301**	**0**	**5**	**11.2**	**6.4**	**0.4**	**18.0**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**301**	**0**	**5**	**11.2**	**6.4**	**0.4**	**18.0**	**-**	**-**	**-**	**-**
1/1	422	422	95	0	2	2.0	1.0	0.0	3.1	26.5	7.4	1.0	8.4
2/1	346	346	41	0	0	2.5	0.7	0.2	3.4	35.6	7.2	0.7	8.0
3/1	384	384	120	0	3	2.5	2.0	0.2	4.7	44.3	8.7	2.0	10.8
4/1	520	520	45	0	0	4.2	2.6	0.1	6.8	47.1	12.1	2.6	14.7
5/1	388	388	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	543	543	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	293	293	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	448	448	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 6.7 Total Delay for Signalled Lanes (pcuHr): 18.05 Cycle Time (s): 90
PRC Over All Lanes (%): 6.7 Total Delay Over All Lanes(pcuHr): 18.05

Full Input Data And Results

Scenario 18: '2026 P1 (Without Link Road) PM' (FG18: '2026 P1 (Without Link Road) PM', Plan 1: 'Network Control Plan 1')

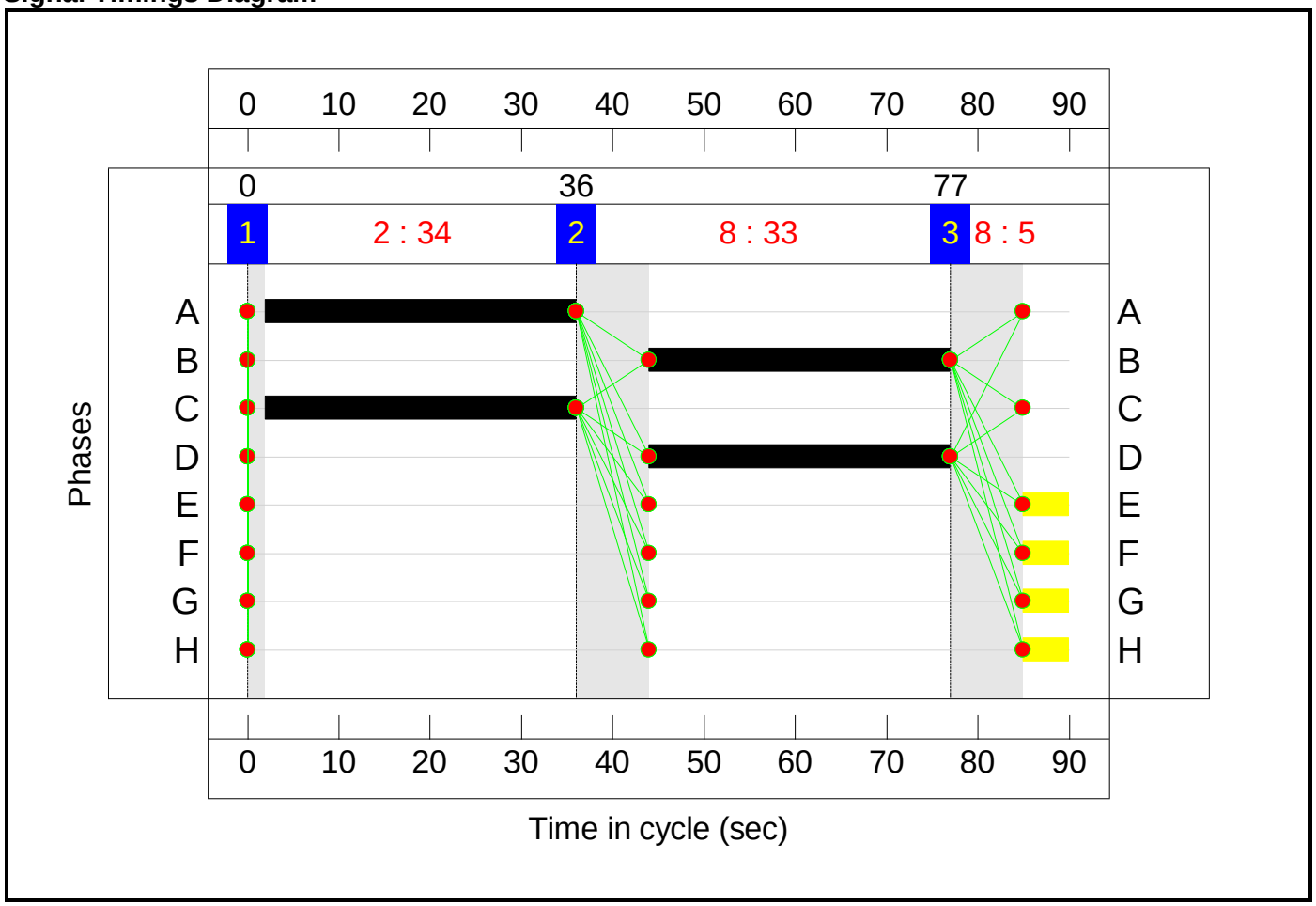
Stage Sequence Diagram



Stage Timings

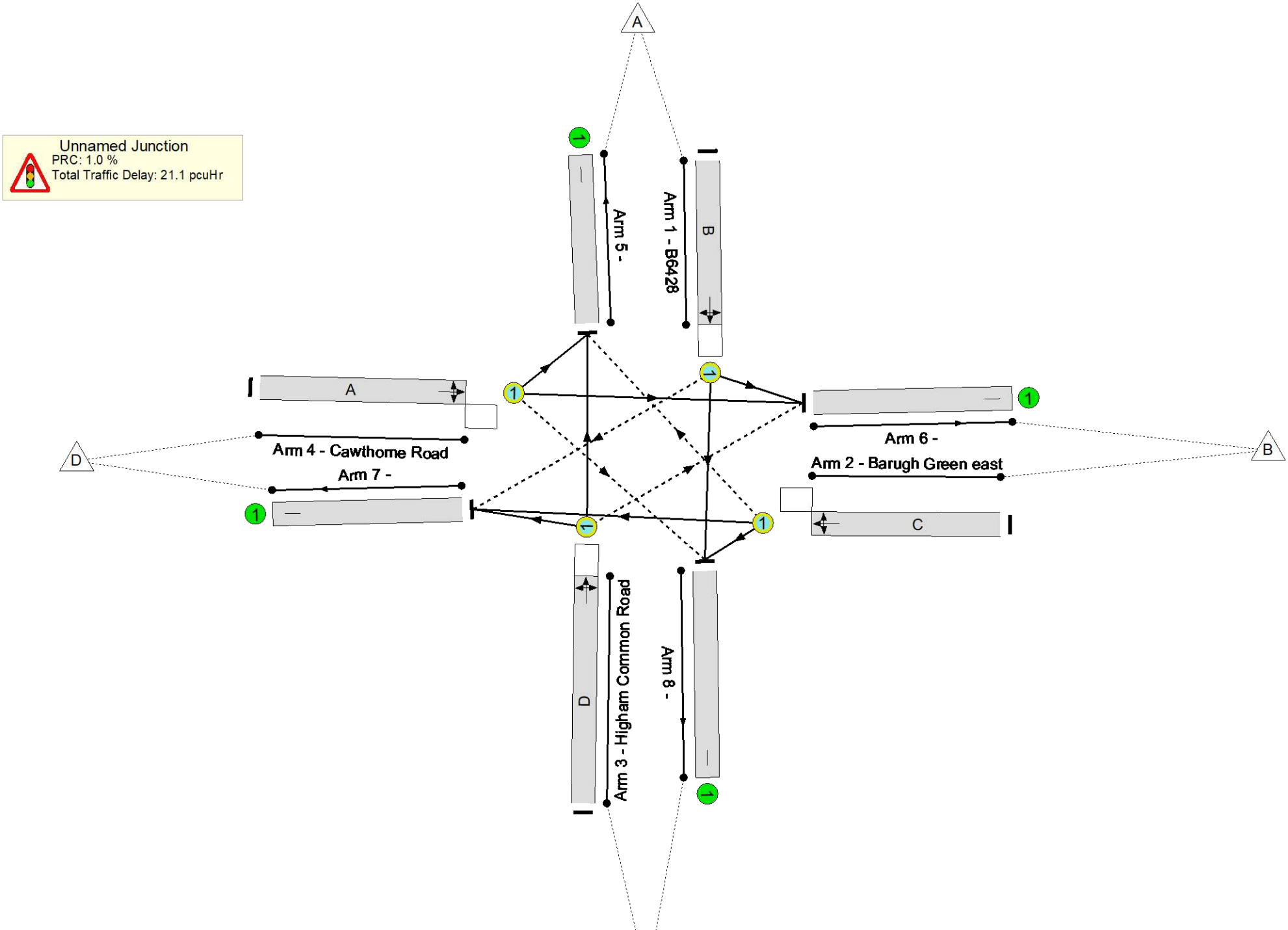
Stage	1	2	3
Duration	34	33	5
Change Point	0	36	77

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Unnamed Junction
PRC: 1.0 %
Total Traffic Delay: 21.1 pcuHr
A
B
C
D
Arm 1 - B6428
Arm 2 - Barugh Green east
Arm 3 - Higham Common Road
Arm 4 - Cawthorne Road
Arm 5 -
Arm 6 -
Arm 7 -
Arm 8 -

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.1%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.1%**
1/1	B6428 Left Right Ahead	O	N/A	N/A	B		1	33	-	363	1828	481	75.5%
2/1	Barugh Green east Right Ahead Left	O	N/A	N/A	C		1	34	-	651	1959	734	88.7%
3/1	Higham Common Road Ahead Right Left	O	N/A	N/A	D		1	33	-	419	1829	470	89.1%
4/1	Cawthorne Road Left Ahead Right	O	N/A	N/A	A		1	34	-	314	1933	745	42.1%
5/1		U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	361	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	546	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**428**	**0**	**12**	**11.6**	**9.1**	**0.4**	**21.1**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**428**	**0**	**12**	**11.6**	**9.1**	**0.4**	**21.1**	**-**	**-**	**-**	**-**
1/1	363	363	112	0	3	2.2	1.5	0.1	3.8	37.5	7.2	1.5	8.7
2/1	651	651	160	0	0	4.7	3.6	0.1	8.4	46.5	15.2	3.6	18.8
3/1	419	419	125	0	9	3.0	3.6	0.1	6.7	58.0	9.9	3.6	13.5
4/1	314	314	31	0	0	1.8	0.4	0.1	2.2	25.3	5.7	0.4	6.0
5/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	361	361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	546	546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	314	314	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 1.0 Total Delay for Signalled Lanes (pcuHr): 21.15 Cycle Time (s): 90
PRC Over All Lanes (%): 1.0 Total Delay Over All Lanes(pcuHr): 21.15