

Appendix A

Traffic Survey



ABACUS
TRAFFIC SURVEYS
14 CLIFF HILL COURT,
HOLMFIRTH, HD9 1JF

A	A628 Cudworth Parkway (SW)
B	A628 Cudworth Parkway (NE)
C	Weetshaw Lane

Cudworth Parkway, Cudworth
18/07/2025

Time Start	A - B		A - C		B - A		B - C		C - A		C - B	
	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV
7:00 - 7:15	105	9	2	0	97	7	18	0	2	0	28	0
7:15 - 7:30	126	10	2	0	101	8	27	0	1	0	35	0
7:30 - 7:45	137	15	3	0	119	8	34	0	4	1	49	0
7:45 - 8:00	85	9	2	0	93	9	29	0	0	0	40	0
8:00 - 8:15	108	9	1	0	118	12	40	0	4	0	47	0
8:15 - 8:30	66	10	1	0	101	9	40	0	3	0	44	0
8:30 - 8:45	86	23	2	0	87	5	38	0	1	0	44	1
8:45 - 9:00	79	20	2	0	91	5	33	0	3	0	35	0
9:00 - 9:15	81	13	2	0	88	4	24	0	2	0	33	0
9:15 - 9:30	69	9	1	0	82	4	21	0	1	0	26	0
Total	942	127	18	0	977	71	304	0	21	1	381	1
16:00 - 16:15	115	2	1	0	107	7	34	0	2	0	46	0
16:15 - 16:30	112	2	1	0	103	6	36	0	3	0	45	0
16:30 - 16:45	117	2	3	0	121	4	50	0	4	0	61	0
16:45 - 17:00	110	7	2	0	97	2	59	0	0	0	53	0
17:00 - 17:15	117	1	2	0	90	5	50	0	3	0	70	0
17:15 - 17:30	125	3	4	0	89	3	39	0	0	0	52	0
17:30 - 17:45	129	0	1	0	79	1	46	0	3	0	48	0
17:45 - 18:00	121	1	2	0	77	2	37	0	2	0	40	0
18:00 - 18:15	116	1	1	0	69	1	29	0	1	0	29	0
18:15 - 18:30	104	1	2	0	67	1	25	0	2	0	24	0
Total	1166	20	19	0	899	32	405	0	20	0	468	0



A	A628 Cudworth Parkway
B	Pontefract Road (North)
C	A628 Collier Road
D	Pontefract Road (South)

Date	23 02 2026
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Time Start	A - B		A - C		A - D		B - A		B - C		B - D		C - A		C - B		C - D		D - A		D - B		D - C	
	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV
7:00 - 7:15	10	1	76	7	1	0	13	1	19	1	9	1	51	3	15	1	18	1	0	0	9	1	50	1
7:15 - 7:30	14	1	110	8	2	0	21	1	24	0	11	1	73	3	15	1	27	2	2	0	15	1	71	1
7:30 - 7:45	22	0	159	11	2	0	32	0	44	0	17	2	82	4	18	1	35	0	0	0	19	1	102	2
7:45 - 8:00	11	1	91	10	2	0	28	1	31	1	15	2	102	5	24	1	44	1	1	0	29	1	90	1
8:00 - 8:15	12	1	72	7	2	0	31	1	27	0	7	2	100	5	25	1	40	1	0	0	12	1	46	1
8:15 - 8:30	26	1	107	14	2	0	36	1	28	2	40	3	79	2	15	1	30	1	1	0	8	0	51	1
8:30 - 8:45	14	1	120	13	2	0	21	1	31	2	20	2	121	10	11	1	65	0	1	0	24	2	63	2
8:45 - 9:00	9	1	80	9	3	0	19	1	21	2	18	1	119	3	10	1	46	1	1	0	19	1	57	1
9:00 - 9:15	9	0	83	8	2	0	20	1	22	1	17	2	103	4	8	1	35	0	1	0	15	1	49	1
9:15 - 9:30	10	1	86	5	2	0	15	1	17	2	16	2	97	3	9	1	30	1	1	0	12	1	43	1
Total	137	8	984	92	20	0	236	9	264	11	170	18	927	42	150	10	370	8	8	0	162	10	622	12
16:00 - 16:15	25	1	131	5	2	0	34	1	34	1	43	0	141	6	20	0	45	1	8	1	27	1	61	0
16:15 - 16:30	30	0	120	6	2	0	41	1	42	0	39	0	123	7	16	1	43	0	5	0	24	1	53	0
16:30 - 16:45	23	0	123	5	2	0	35	0	35	1	46	1	132	7	15	0	55	0	7	0	25	1	51	1
16:45 - 17:00	24	1	119	6	1	0	30	1	36	0	55	0	126	4	17	1	60	1	7	0	27	1	49	0
17:00 - 17:15	26	0	135	5	4	0	27	0	28	1	41	1	116	5	18	0	90	1	5	1	37	2	52	0
17:15 - 17:30	25	0	134	3	6	0	21	0	27	1	31	1	120	4	15	1	61	1	4	0	25	2	51	0
17:30 - 17:45	23	1	123	4	3	0	20	1	23	0	30	0	136	5	17	0	62	1	5	1	31	1	53	2
17:45 - 18:00	20	1	116	3	2	0	18	1	20	1	27	1	119	3	15	1	54	1	5	1	25	1	47	0
18:00 - 18:15	15	0	111	3	2	0	17	0	15	1	29	1	110	4	14	0	39	0	3	0	18	1	39	1
18:15 - 18:30	14	1	97	2	2	0	16	1	10	0	26	1	107	5	14	1	24	1	1	0	16	1	31	1
Total	225	5	1209	42	26	0	259	6	270	6	367	6	1230	50	161	5	533	7	50	4	255	12	487	5

Arm A Mean Max Queue	8.9 PCUs	0815hrs	3.2 PCUs	1715hrs
Arm B Mean Max Queue	6.2 PCUs	0800hrs	2.6 PCUs	1630hrs
Arm C Mean Max Queue	6.5 PCUs	0815hrs	9.4 PCUs	1630hrs
Arm D Mean Max Queue	3.5 PCUs	0800hrs	2.6 PCUs	1615hrs



A	West Green Way
B	A628 Cudworth Parkway
C	Barnsley Road
D	A628 Pontefract Road
E	Burton Road

Site name	Pontefract Road Roundabout
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Date	04 03 2026
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Time Start	A - B		A - C		A - D		A - E		B - A		B - C		B - D		B - E		C - A		C - B		C - D		C - E		D - A		D - B		D - C		D - E		E - A		E - B		E - C		E - D	
	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV	Car / LVG	HGV
7:00 - 7:15	26	4	10	1	18	2	4	2	22	2	1	0	32	2	25	1	24	0	3	0	17	2	25	0	20	1	21	2	19	1	2	1	3	0	21	2	8	1	5	2
7:15 - 7:30	31	5	9	0	20	2	4	3	23	3	0	0	38	2	28	1	32	1	3	0	20	2	27	1	27	0	26	2	22	2	3	1	2	1	39	2	10	1	5	2
7:30 - 7:45	33	4	19	0	29	0	4	4	28	3	0	0	46	0	35	1	50	0	3	0	28	1	33	0	35	2	31	3	24	3	4	2	2	1	42	5	14	1	6	5
7:45 - 8:00	25	6	10	1	33	2	17	2	21	5	0	1	34	2	24	0	39	0	3	0	21	2	35	0	30	0	29	1	42	2	6	1	9	1	34	2	25	1	5	2
8:00 - 8:15	16	4	26	0	29	6	7	0	20	1	1	0	41	1	25	1	45	0	2	0	26	5	32	1	28	2	27	2	28	2	6	1	16	0	18	3	18	1	8	3
8:15 - 8:30	21	3	26	2	36	2	2	3	8	3	1	0	38	3	29	3	36	0	6	0	26	3	40	0	27	1	25	2	23	1	7	1	13	3	14	4	26	1	12	4
8:30 - 8:45	12	5	20	2	19	1	7	0	13	8	0	0	46	1	21	3	37	1	1	0	28	2	39	0	30	0	27	0	43	2	22	0	6	7	20	0	30	1	12	0
8:45 - 9:00	20	4	17	1	18	1	6	2	16	4	0	0	20	1	17	1	27	0	3	0	26	1	46	0	22	2	25	1	30	1	10	1	4	4	25	3	27	1	10	3
9:00 - 9:15	22	3	15	1	14	1	4	1	12	4	1	0	19	2	14	1	24	1	3	0	20	1	29	1	17	1	22	1	22	1	7	0	3	2	19	0	14	1	8	0
9:15 - 9:30	21	2	14	1	13	2	3	0	8	3	0	0	17	1	12	1	16	0	2	0	15	1	22	0	14	1	19	1	17	1	4	0	2	1	20	0	12	1	5	0
Total	227	40	166	9	229	19	58	17	171	36	4	1	331	15	230	13	330	3	29	0	227	20	328	3	250	10	252	15	270	16	71	8	60	20	252	21	184	10	76	21

16:00 - 16:15	26	3	17	0	32	4	6	0	16	2	0	0	46	3	35	2	39	1	6	0	26	2	49	0	27	1	34	1	25	2	7	1	3	1	35	1	27	1	9	1
16:15 - 16:30	20	1	16	0	25	3	5	1	11	0	0	0	42	1	31	0	47	0	5	0	24	2	47	1	29	1	43	0	30	2	8	1	4	0	39	0	35	1	10	2
16:30 - 16:45	19	3	25	0	33	2	12	0	23	4	0	0	34	3	23	3	32	0	4	0	25	1	44	0	33	1	41	0	38	1	10	0	5	0	38	1	35	0	12	0
16:45 - 17:00	25	5	21	0	29	0	6	0	7	4	0	0	39	3	19	1	25	0	5	0	19	1	37	0	47	0	39	1	45	1	10	2	4	0	27	3	43	0	8	0
17:00 - 17:15	20	3	23	0	39	0	5	0	15	2	0	0	29	3	19	0	20	1	5	1	35	4	45	0	38	0	37	2	40	1	11	0	7	2	31	1	35	1	12	0
17:15 - 17:30	17	2	28	0	45	0	5	0	13	3	1	0	41	0	26	0	24	0	5	0	18	4	33	0	30	0	35	0	35	2	7	0	1	0	34	2	38	1	5	0
17:30 - 17:45	20	2	24	0	23	1	5	1	11	2	0	0	39	2	24	1	22	0	4	0	18	3	35	0	29	0	37	2	36	1	9	1	2	0	29	3	33	0	5	1
17:45 - 18:00	19	2	21	0	24	1	4	0	10	2	0	0	32	2	20	1	19	1	4	1	16	3	31	1	27	1	38	1	25	1	6	0	3	0	27	2	33	1	6	1
18:00 - 18:15	21	1	17	0	22	0	4	1	10	2	1	0	27	2	15	0	17	0	3	0	14	2	29	0	24	1	27	1	20	1	5	1	3	1	31	2	27	1	5	1
18:15 - 18:30	17	1	14	0	15	1	3	0	11	2	0	0	25	0	12	1	13	1	2	1	12	2	27	1	22	0	25	1	17	1	4	0	2	0	25	2	22	1	4	0
Total	658	103	538	18	745	50	171	37	469	95	10	2	1016	49	684	35	918	10	101	3	661	64	1033	9	806	25	860	39	851	45	219	22	154	44	820	59	696	27	228	48

Arm A Mean Max Queue	4.8 PCUs	0715hrs	21.7 PCUs	1515hrs
Arm B Mean Max Queue	3.0 PCUs	0745hrs	1.7 PCUs	1715hrs
Arm C Mean Max Queue	3.7 PCUs	0845hrs	0.7 PCUs	1615hrs
Arm D Mean Max Queue	0.7 PCUs	0830hrs	7.7 PCUs	1630hrs
Arm E Mean Max Queue	6.0 PCUs	0730hrs	12.4 PCUs	1515hrs

Appendix B

Injury Accident Data

Accidents between dates 17/03/2023 and 17/03/2025 (24) months

Selection: Notes:

Selected using Manual Selection

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties			Causation Factors/ Prob	Ped			Light	Weather	Road Surface	Vehicle Types
						Ftl	Ser	Sl		L	M	D				
231288631	Serious	20/03/2023	Mon	0919	438524 409644	0	2	1	308V2B 509V2A	0	0	0	Light	Fine without high winds	Dry	98 9
231306304	Slight	11/05/2023	Thu	1107	438247 410486	0	0	1	602V1B	0	0	0	Light	Fine without high winds	Dry	9 9
241470646	Slight	19/07/2024	Fri	1440	439413 410336	0	0	1	801C1B	5	1	3	Light	Fine without high winds	Dry	4
Column Totals		Slight :	2			0	2	1					Light :	3		Dry : 3
		Serious :	1										Dark :	0		Wet : 0
		Fatal :	0													

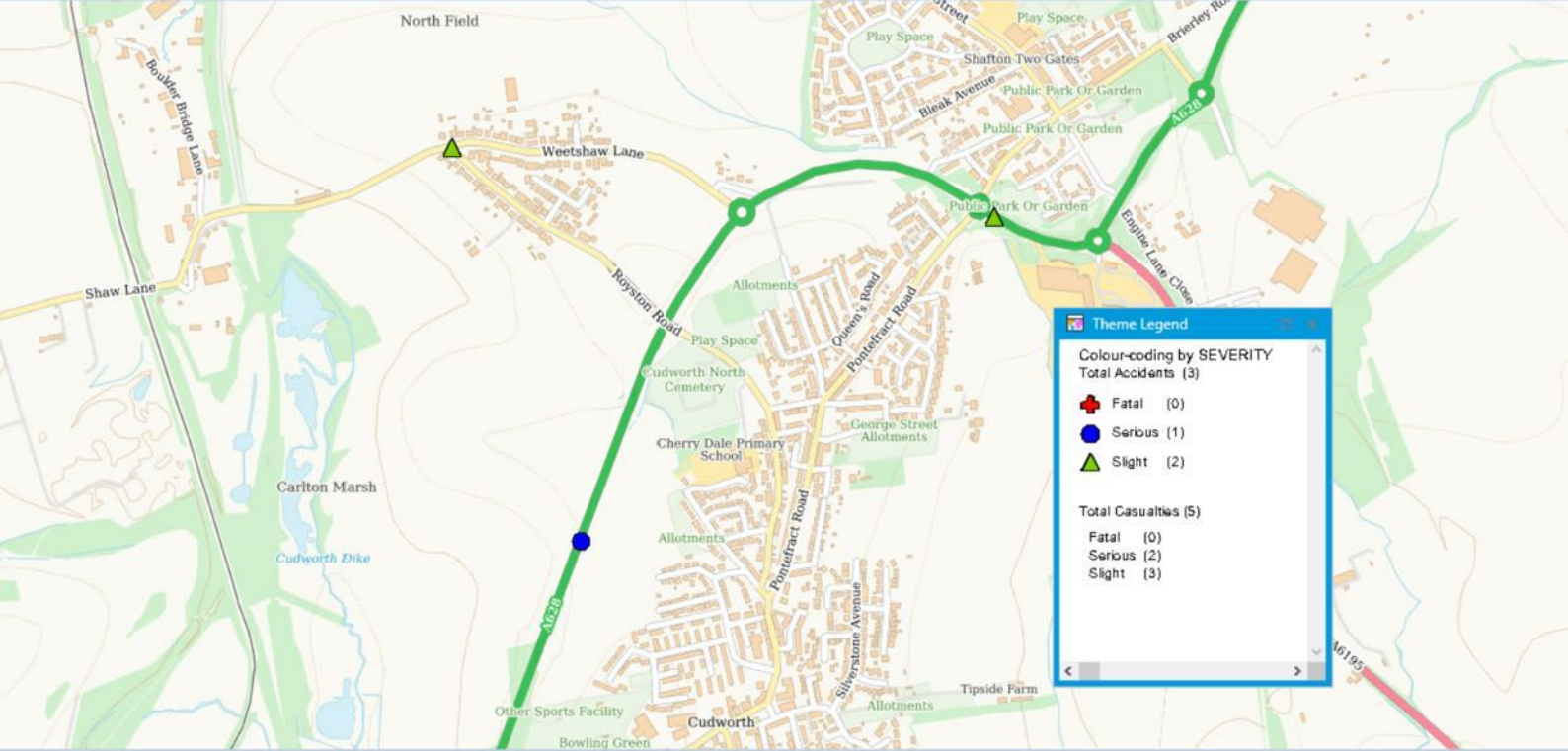
Total number of accidents listed: 3

Accidents between dates 17/03/2023 and 17/03/2025 (24) months

Selection: Notes:

Selected using Manual Selection

Police Ref.	Date	Cas.	Sev.	P2W	Cycs	Peds	Ch	60+	Vis.	Manv.	Road Cond.	Time	Location
231288631	20/03/2023	3	Serious	0	0	0	0	0	Light	No turn	Dry	0919	CUDWORTH PARKWAY (A628), BARNSELEY
231306304	11/05/2023	1	Slight	0	0	0	0	0	Light	Left	Dry	1107	ROYSTON ROAD AT JUNCTION WITH SHAW LANE, CUDWORTH, BA
241470646	19/07/2024	1	Slight	1	0	1	1	0	Light	No turn	Dry	1440	COLLIER ROAD (A628) NEAR JUNCTION WITH SHAFTON ROUNDABO
Column Totals		5		1	0	1	1	0					
No. of Accidents				1	0	1	1	0					
Total number of accidents listed:		3											



Theme Legend

Colour-coding by SEVERITY

Total Accidents (3)

- Fatal (0)
- Serious (1)
- Slight (2)

Total Casualties (5)

- Fatal (0)
- Serious (2)
- Slight (3)

Accidents between dates 17/03/2023 and 17/03/2025 (24) months
Selection: Notes:
Selected using Manual Selection

231288631 20/03/2023 Monday Time: 0919 Vehicles 2 Casualties 3 Serious
Easting: 438,524 Northing: 409,644
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: CUDWORTH PARKWAY (A628), BARNSELY
Description: V1 TRAVELLING DOWN A628 AT AROUND 15 MPH IN SLOW MOVING TRAFFIC, V2 HAS BEEN DRIVING DOWN A628, DRIVER HAS GONE TO TURN THE MUSIC DOWN THEN COLLIDED INTO THE BACK OF V1

Vehicle Reference: 1 Goods vehicle - unknown Going ahead
First point of impact: Back
Vehicle direction: N to S Journey: Not known
Age of Driver : 58 Breath test: Not requested

Contributory Factors : 308 509

Casualty Reference: 1 Age: 58 Male Driver/rider Severity: Serious

Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 3 Age: 17 Male Passenger Severity: Slight

Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: N to S Journey: Journey as part of work
Age of Driver : 21 Breath test: Not requested

Contributory Factors : 308 509

Casualty Reference: 2 Age: 21 Female Driver/rider Severity: Serious

Ped Dir: Ped Movement :
Ped Location:

Accidents between dates 17/03/2023 and 17/03/2025 (24) months
Selection: Notes:
Selected using Manual Selection

231306304 11/05/2023 Thursday Time: 1107 Vehicles 2 Casualties 1 Slight
Easting: 438,247 Northing: 410,486
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: ROYSTON ROAD AT JUNCTION WITH SHAW LANE, CUDWORTH, BARNSELY,
BARNSELY
Description: V2 WAS STOPPED AT THE JUNCTION OF ROYSTON ROAD AND WEETSHAW
LANE DUE TO A LORRY PASSING. V1 HAS COME UP BEHIND NOT SEEING THIS
VEHICLE WAS STATIONARY AND HAS GONE INTO THE BACK OF THE FIRST
VEHICLE.

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: SE to NW Journey: Other
Age of Driver : 26 Breath test: Negative

Contributory Factors : 602

Vehicle Reference: 2 Car Turning left
First point of impact: Back
Vehicle direction: SE to W Journey: Other
Age of Driver : 35 Breath test: Not requested

Contributory Factors : 602

Casualty Reference: 1 Age: 35 Male Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Accidents between dates 17/03/2023 and 17/03/2025 (24) months
 Selection: Notes:
 Selected using Manual Selection

241470646 19/07/2024 Friday Time: 1440 Vehicles 1 Casualties 1 Slight
 Easting: 439,413 Northing: 410,336
 Fine without high winds Road Surface: Dry Daylight
 Road Type: Roundabout Speed Limit: 30

Location: COLLIER ROAD (A628) NEAR JUNCTION WITH SHAFTON ROUNDABOUT (A628),
 SHAFTON, BARNSELY

Description: RIDER OF MOTORCYCLE WAS SLOWLY OVERTAKING TRAFFIC WHEN
 PEDESTRIAN RAN FROM THE NEARSIDE AND A COLLISION OCCURRED.
 MOTORCYCLE FELL ONTO THE RIDER WHO PICKED IT UP AND CHECKED ON
 THE WELFARE OF THE PEDESTRIAN. PEDESTRIAN STATED THAT HE WAS OK.
 A CAR DRIVER SAID THEY WOULD TAKE THE PEDESTRIAN HOME. MOTORCYCLIST GAVE
 THE CAR DRIVER HIS NAME AND REGISTRATION NUMBER.

Vehicle Reference: 1 Motorcycle over 125cc and up Overtaking stationary vehicle on its offside

First point of impact: Nearside

Vehicle direction: E to W

Journey: Commuting to/from work

Age of Driver : 56

Breath test: Driver not contacted

Contributory Factors : 801

Casualty Reference: 1 Age: 12 Male Pedestrian Severity: Slight

Ped Dir: Pedestrian Ped Movement : Driver's nearside

Ped Location: In car elsewhere

Accidents between dates 17/03/2023 and 17/03/2025 (24) months
Selection: Notes:
Selected using Manual Selection

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only excluding 2-wheels	0	1	1	2
2-wheeled motor vehicles	0	0	1	1
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	0	1	2	3

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	2	1	3
Passenger	0	0	1	1
Motorcycle rider	0	0	0	0
Cyclist	0	0	0	0
Pedestrian	0	0	1	1
Other	0	0	0	0
Total	0	2	3	5

Details of Personal Injury Accidents for Period - 17/03/2023 to 17/03/2025 (24) months

Selection: Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles					Casualties		
			Veh No / Type / Manv / Dir / Class					Sex / Age / Sev		
Road No.	Date									
2nd Road No.	Time									
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

231288631

R1: A 628

E 438,524

N 409,644

Monday
20/03/2023
0919hrs
Daylight:street lights present
Dry
Fine without high winds
60 mph

CUDWORTH PARKWAY (A628),
BARNSELEY

Veh 1

Goods Unknown

Going ahead

Veh 1

Goods Unknown

Going ahead

Veh 2

Car

Going ahead

N to S

N to S

N to S

M 17

M 58

F 21

Slight

Serious

Serious

Causation Factor:

Participant:

Confidence:

1st: Following too close

Vehicle 2

Possible

2nd: Distraction in vehicle

Vehicle 2

Very Likely

V1 TRAVELLING DOWN A628 AT AROUND 15 MPH IN SLOW MOVING TRAFFIC, V2 HAS BEEN DRIVING DOWN A628, DRIVER HAS GONE TO TURN THE MUSIC DOWN THEN COLLIDED INTO THE BACK OF V1

231306304

R1: U

R2: U

E 438,247

N 410,486

Thursday
11/05/2023
1107hrs
Daylight:street lights present
Dry
Fine without high winds
30 mph

ROYSTON ROAD AT JUNCTION WITH SHAW LANE, CUDWORTH, BARNSELEY, BARNSELEY

Veh 1

Car

Going ahead

Veh 2

Car

Turning left

SE to NW

SE to W

M 35

Slight

Causation Factor:

Participant:

Confidence:

1st: Careless/Reckless/In a hurry

Vehicle 1

Possible

V2 WAS STOPPED AT THE JUNCTION OF ROYSTON ROAD AND WEETSHAW LANE DUE TO A LORRY PASSING. V1 HAS COME UP BEHIND NOT SEEING THIS VEHICLE WAS STATIONARY AND HAS GONE INTO THE BACK OF THE FIRST VEHICLE.

241470646

R1: A 628

R2: A 628

E 439,413

N 410,336

Friday
19/07/2024
1440hrs
Daylight:street lights present
Dry
Fine without high winds
30 mph

COLLIER ROAD (A628) NEAR JUNCTION WITH SHAFTON ROUNDABOUT (A628), SHAFTON,

Veh 1

M/C > 125 cc

O/take s/veh o/side

E to W

M 12

Slight

Causation Factor:

Participant:

Confidence:

1st: Crossed road masked by stationary veh

Casualty 1

Possible

RIDER OF MOTORCYCLE WAS SLOWLY OVERTAKING TRAFFIC WHEN PEDESTRIAN RAN FROM THE NEAR SIDE AND A COLLISION OCCURRED. MOTORCYCLE FELL ONTO THE RIDER WHO PICKED IT UP AND CHECKED ON THE WELFARE OF THE PEDESTRIAN. PEDESTRIAN STATED THAT HE WAS OK. A CAR DRIVER SAID THEY WOULD TAKE THE PEDESTRIAN HOME. MOTORCYCLIST GAVE THE CAR DRIVER HIS NAME AND REGISTRATION NUMBER.

Appendix C

Development Proposals

Appendix D

TRICS Data

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	HC HAMPSHIRE	3 days
	HF HERTFORDSHIRE	2 days
	KC KENT	5 days
	SC SURREY	2 days
	SP SOUTHAMPTON	1 days
	WS WEST SUSSEX	6 days
04	EAST ANGLIA	
	NF NORFOLK	8 days
05	EAST MIDLANDS	
	DY DERBY	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 156 to 1146 (units:)
Range Selected by User: 150 to 1200 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 26/06/24

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	5 days
Tuesday	13 days
Wednesday	7 days
Thursday	5 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	30 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	26
Neighbourhood Centre (PPS6 Local Centre)	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	23
Village	4
Out of Town	2
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	13 days - Selected
Servicing vehicles Excluded	28 days - Selected

Secondary Filtering selection:

Use Class:

C3 30 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	8 days
10,001 to 15,000	11 days
15,001 to 20,000	5 days
20,001 to 25,000	2 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	5 days
50,001 to 75,000	4 days
75,001 to 100,000	6 days
100,001 to 125,000	1 days
125,001 to 250,000	7 days
250,001 to 500,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	9 days
1.1 to 1.5	19 days
1.6 to 2.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	23 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	30 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	DY-03-A-01 RADBOURNE LANE DERBY	MIXED HOUSES	DERBY
	Edge of Town Residential Zone Total No of Dwellings:	371	
	Survey date: TUESDAY	10/07/18	Survey Type: MANUAL
2	ES-03-A-03 SHEPHAM LANE POLEGATE	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:	212	
	Survey date: MONDAY	11/07/16	Survey Type: MANUAL
3	HC-03-A-34 STONEHAM LANE EASTLEIGH	MIXED HOUSES & FLATS	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	243	
	Survey date: TUESDAY	14/11/23	Survey Type: MANUAL
4	HC-03-A-35 EAGLE AVENUE WATERLOOVILLE LOVEDEAN	MIXED HOUSES & FLATS	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	289	
	Survey date: TUESDAY	31/10/23	Survey Type: MANUAL
5	HC-03-A-38 CROW LANE RINGWOOD CROW	MIXED HOUSES & FLATS	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	195	
	Survey date: WEDNESDAY	26/06/24	Survey Type: MANUAL
6	HF-03-A-03 HARE STREET ROAD BUNTINGFORD	MIXED HOUSES	HERTFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	160	
	Survey date: MONDAY	08/07/19	Survey Type: MANUAL
7	HF-03-A-06 A505 ROYSTON	MIXED HOUSES & FLATS	HERTFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	180	
	Survey date: TUESDAY	28/11/23	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	KC-03-A-06 MARGATE ROAD HERNE BAY	MIXED HOUSES & FLATS	KENT
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 363 Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL		
9	KC-03-A-07 RECVLVER ROAD HERNE BAY	MIXED HOUSES	KENT
	Edge of Town Residential Zone Total No of Dwellings: 288 Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL		
10	KC-03-A-08 MAIDSTONE ROAD CHARING	MIXED HOUSES	KENT
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 159 Survey date: TUESDAY 22/05/18 Survey Type: MANUAL		
11	KC-03-A-11 COLDHARBOUR ROAD GRAVESEND	MIXED HOUSES & FLATS	KENT
	Edge of Town No Sub Category Total No of Dwellings: 375 Survey date: MONDAY 20/03/23 Survey Type: MANUAL		
12	KC-03-A-12 WESTERN LINK FAVERSHAM DAVINGTON	MIXED HOUSES & FLATS	KENT
	Edge of Town Residential Zone Total No of Dwellings: 186 Survey date: TUESDAY 19/09/23 Survey Type: MANUAL		
13	NF-03-A-06 BEAUFORT WAY GREAT YARMOUTH BRADWELL	MIXED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 275 Survey date: MONDAY 23/09/19 Survey Type: MANUAL		
14	NF-03-A-09 ROUND HOUSE WAY NORWICH CRINGLEFORD	MIXED HOUSES & FLATS	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 984 Survey date: TUESDAY 24/09/19 Survey Type: MANUAL		

LIST OF SITES relevant to selection parameters (Cont.)

15	NF-03-A-23 SILFIELD ROAD WYMONDHAM	MIXED HOUSES & FLATS		NORFOLK
	Edge of Town			
	Out of Town			
	Total No of Dwellings:	514		
	Survey date: WEDNESDAY	22/09/21	Survey Type: MANUAL	
16	NF-03-A-28 ATLANTIC AVENUE NORWICH SPROWSTON	MIXED HOUSES & FLATS		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	1146		
	Survey date: THURSDAY	22/09/22	Survey Type: MANUAL	
17	NF-03-A-30 BRANDON ROAD SWAFFHAM	MIXED HOUSES		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	266		
	Survey date: THURSDAY	23/09/21	Survey Type: MANUAL	
18	NF-03-A-38 BEAUFORT WAY GREAT YARMOUTH BRADWELL	MIXED HOUSES		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	537		
	Survey date: TUESDAY	20/09/22	Survey Type: MANUAL	
19	NF-03-A-39 HEATH DRIVE HOLT	MIXED HOUSES		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	212		
	Survey date: TUESDAY	27/09/22	Survey Type: MANUAL	
20	NF-03-A-46 BURGH ROAD AYLSHAM	MIXED HOUSES & FLATS		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	300		
	Survey date: TUESDAY	14/09/21	Survey Type: MANUAL	
21	SC-03-A-08 REIGATE ROAD HORLEY	MIXED HOUSES		SURREY
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	790		
	Survey date: WEDNESDAY	04/05/22	Survey Type: MANUAL	

LIST OF SITES relevant to selection parameters (Cont.)

22	SC-03-A-12 AARONS HILL GODALMING	MIXED HOUSES & FLATS	SURREY
	Edge of Town Residential Zone Total No of Dwellings: 252 Survey date: WEDNESDAY 12/06/24		Survey Type: MANUAL
23	SP-03-A-02 BARNFIELD WAY NEAR SOUTHAMPTON HEDGE END	MIXED HOUSES & FLATS	SOUTHAMPTON
	Edge of Town Out of Town Total No of Dwellings: 250 Survey date: TUESDAY 12/10/21		Survey Type: MANUAL
24	ST-03-A-07 BEACONSIDE STAFFORD MARSTON GATE	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 248 Survey date: WEDNESDAY 22/11/17		Survey Type: MANUAL
25	WS-03-A-08 ROUNDSTONE LANE ANGMERING	MIXED HOUSES	WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 180 Survey date: THURSDAY 19/04/18		Survey Type: MANUAL
26	WS-03-A-11 ELLIS ROAD WEST HORSHAM S BROADBRIDGE HEATH	MIXED HOUSES	WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 918 Survey date: TUESDAY 02/04/19		Survey Type: MANUAL
27	WS-03-A-18 LONDON ROAD HASSOCKS	MIXED HOUSES & FLATS	WEST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 156 Survey date: MONDAY 15/05/23		Survey Type: MANUAL
28	WS-03-A-21 HILLAND ROAD BILLINGSHURST	MIXED HOUSES	WEST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 480 Survey date: THURSDAY 09/11/23		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

29	WS-03-A-23	MIXED HOUSES & FLATS	WEST SUSSEX
	TURNERS HILL ROAD		
	EAST GRINSTEAD		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	197	
	Survey date: TUESDAY	14/05/24	Survey Type: MANUAL
30	WS-03-A-24	MIXED HOUSES	WEST SUSSEX
	MADGWICK LANE		
	CHICHESTER		
	WESTHAMPNETT		
	Edge of Town		
	Village		
	Total No of Dwellings:	300	
	Survey date: THURSDAY	23/05/24	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
HC-03-A-26	24/06/21	Covid
SF-03-A-09	24/06/21	Covid
WS-03-A-13	23/06/21	Covid

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Ranking Type: TOTALS

Time Range: 08:00-09:00

CALCULATION FACTOR 1 DWELLS

15th Percentile = No. 26 HC-03-A-34 Tot: 0.358

85th Percentile = No. 5 ES-03-A-03 Tot: 0.627

Median Values

Arrivals: 0.098

Departures: 0.385

Totals: 0.482

Mean Values

Arrivals: 0.139

Departures: 0.351

Totals: 0.490

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	SP-03-A-02	MIXED HOUSES &	NEAR SOUTHAMPTON	SOUTHAMPTON	250	Tue	12/10/21	0.184	0.584	0.768	2.44
2	NF-03-A-06	MIXED HOUSES	GREAT YARMOUTH	NORFOLK	275	Mon	23/09/19	0.207	0.553	0.760	2.13
3	NF-03-A-38	MIXED HOUSES	GREAT YARMOUTH	NORFOLK	537	Tue	20/09/22	0.201	0.505	0.706	2.56
4	HC-03-A-38	MIXED HOUSES &	RINGWOOD	HAMPSHIRE	195	Wed	26/06/24	0.185	0.492	0.677	2.53
5	ES-03-A-03	MIXED HOUSES &	POLEGATE	EAST SUSSEX	212	Mon	11/07/16	0.165	0.462	0.627	1.68
6	KC-03-A-07	MIXED HOUSES	HERNE BAY	KENT	288	Wed	27/09/17	0.240	0.385	0.625	3.09
7	WS-03-A-23	MIXED HOUSES &	EAST GRINSTEAD	WEST SUSSEX	197	Tue	14/05/24	0.234	0.376	0.610	2.73
8	NF-03-A-23	MIXED HOUSES &	WYMONDHAM	NORFOLK	514	Wed	22/09/21	0.183	0.422	0.605	2.48
9	WS-03-A-11	MIXED HOUSES	WEST HORSHAM	WEST SUSSEX	918	Tue	02/04/19	0.147	0.451	0.598	2.06
10	SC-03-A-08	MIXED HOUSES	HORLEY	SURREY	790	Wed	04/05/22	0.151	0.432	0.583	2.20
11	NF-03-A-28	MIXED HOUSES &	NORWICH	NORFOLK	1146	Thu	22/09/22	0.172	0.383	0.555	2.15
12	NF-03-A-46	MIXED HOUSES &	AYLSHAM	NORFOLK	300	Tue	14/09/21	0.253	0.293	0.546	2.41
13	WS-03-A-24	MIXED HOUSES	CHICHESTER	WEST SUSSEX	300	Thu	23/05/24	0.130	0.377	0.507	2.59
14	DY-03-A-01	MIXED HOUSES	DERBY	DERBY	371	Tue	10/07/18	0.089	0.402	0.491	2.92
15	ST-03-A-07	DETACHED & SEM	STAFFORD	STAFFORDSHIRE	248	Wed	22/11/17	0.105	0.383	0.488	3.55
16	KC-03-A-06	MIXED HOUSES &	HERNE BAY	KENT	363	Wed	27/09/17	0.091	0.386	0.477	2.17
17	WS-03-A-08	MIXED HOUSES	ANGMERING	WEST SUSSEX	180	Thu	19/04/18	0.106	0.367	0.473	2.93
18	HF-03-A-03	MIXED HOUSES	BUNTINGFORD	HERTFORDSHIRE	160	Mon	08/07/19	0.119	0.319	0.438	3.95
19	HC-03-A-35	MIXED HOUSES &	WATERLOOVILLE	HAMPSHIRE	289	Tue	31/10/23	0.076	0.349	0.425	2.63
20	SC-03-A-12	MIXED HOUSES &	GODALMING	SURREY	252	Wed	12/06/24	0.171	0.250	0.421	2.22
21	NF-03-A-39	MIXED HOUSES	HOLT	NORFOLK	212	Tue	27/09/22	0.118	0.297	0.415	2.31
22	HF-03-A-06	MIXED HOUSES &	ROYSTON	HERTFORDSHIRE	180	Tue	28/11/23	0.106	0.306	0.412	2.03
23	KC-03-A-12	MIXED HOUSES &	FAVERSHAM	KENT	186	Tue	19/09/23	0.145	0.263	0.408	2.23
24	NF-03-A-09	MIXED HOUSES &	NORWICH	NORFOLK	984	Tue	24/09/19	0.145	0.254	0.399	2.35
25	WS-03-A-21	MIXED HOUSES	BILLINGSHURST	WEST SUSSEX	480	Thu	09/11/23	0.113	0.260	0.373	2.31
26	HC-03-A-34	MIXED HOUSES &	EASTLEIGH	HAMPSHIRE	243	Tue	14/11/23	0.045	0.313	0.358	2.19
27	KC-03-A-08	MIXED HOUSES	CHARING	KENT	159	Tue	22/05/18	0.113	0.214	0.327	3.02
28	NF-03-A-30	MIXED HOUSES	SWAFFHAM	NORFOLK	266	Thu	23/09/21	0.075	0.158	0.233	2.84
29	WS-03-A-18	MIXED HOUSES &	HASSOCKS	WEST SUSSEX	156	Mon	15/05/23	0.071	0.160	0.231	2.10
30	KC-03-A-11	MIXED HOUSES &	GRAVESEND	KENT	375	Mon	20/03/23	0.037	0.131	0.168	1.92

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	HC HAMPSHIRE	3 days
	HF HERTFORDSHIRE	2 days
	KC KENT	5 days
	SC SURREY	2 days
	SP SOUTHAMPTON	1 days
	WS WEST SUSSEX	6 days
04	EAST ANGLIA	
	NF NORFOLK	8 days
05	EAST MIDLANDS	
	DY DERBY	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 156 to 1146 (units:)
Range Selected by User: 150 to 1200 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 26/06/24

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	5 days
Tuesday	13 days
Wednesday	7 days
Thursday	5 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	30 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	26
Neighbourhood Centre (PPS6 Local Centre)	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	23
Village	4
Out of Town	2
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	13 days - Selected
Servicing vehicles Excluded	28 days - Selected

Secondary Filtering selection:

Use Class:

C3 30 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	8 days
10,001 to 15,000	11 days
15,001 to 20,000	5 days
20,001 to 25,000	2 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	5 days
50,001 to 75,000	4 days
75,001 to 100,000	6 days
100,001 to 125,000	1 days
125,001 to 250,000	7 days
250,001 to 500,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	9 days
1.1 to 1.5	19 days
1.6 to 2.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	23 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	30 days
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This data displays the number of selected surveys with PTAL Ratings.

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

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12	KC-03-A-12 WESTERN LINK FAVERSHAM DAVINGTON	MIXED HOUSES & FLATS	KENT
	Edge of Town Residential Zone Total No of Dwellings: 186 Survey date: TUESDAY 19/09/23 Survey Type: MANUAL		
13	NF-03-A-06 BEAUFORT WAY GREAT YARMOUTH BRADWELL	MIXED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 275 Survey date: MONDAY 23/09/19 Survey Type: MANUAL		
14	NF-03-A-09 ROUND HOUSE WAY NORWICH CRINGLEFORD	MIXED HOUSES & FLATS	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 984 Survey date: TUESDAY 24/09/19 Survey Type: MANUAL		

LIST OF SITES relevant to selection parameters (Cont.)

15	NF-03-A-23 SILFIELD ROAD WYMONDHAM	MIXED HOUSES & FLATS		NORFOLK
	Edge of Town			
	Out of Town			
	Total No of Dwellings:	514		
	Survey date: WEDNESDAY	22/09/21	Survey Type: MANUAL	
16	NF-03-A-28 ATLANTIC AVENUE NORWICH SPROWSTON	MIXED HOUSES & FLATS		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	1146		
	Survey date: THURSDAY	22/09/22	Survey Type: MANUAL	
17	NF-03-A-30 BRANDON ROAD SWAFFHAM	MIXED HOUSES		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	266		
	Survey date: THURSDAY	23/09/21	Survey Type: MANUAL	
18	NF-03-A-38 BEAUFORT WAY GREAT YARMOUTH BRADWELL	MIXED HOUSES		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	537		
	Survey date: TUESDAY	20/09/22	Survey Type: MANUAL	
19	NF-03-A-39 HEATH DRIVE HOLT	MIXED HOUSES		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	212		
	Survey date: TUESDAY	27/09/22	Survey Type: MANUAL	
20	NF-03-A-46 BURGH ROAD AYLSHAM	MIXED HOUSES & FLATS		NORFOLK
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	300		
	Survey date: TUESDAY	14/09/21	Survey Type: MANUAL	
21	SC-03-A-08 REIGATE ROAD HORLEY	MIXED HOUSES		SURREY
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	790		
	Survey date: WEDNESDAY	04/05/22	Survey Type: MANUAL	

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

LIST OF SITES relevant to selection parameters (Cont.)

22	SC-03-A-12 AARONS HILL GODALMING	MIXED HOUSES & FLATS	SURREY
	Edge of Town Residential Zone Total No of Dwellings: 252 Survey date: WEDNESDAY 12/06/24		Survey Type: MANUAL
23	SP-03-A-02 BARNFIELD WAY NEAR SOUTHAMPTON HEDGE END	MIXED HOUSES & FLATS	SOUTHAMPTON
	Edge of Town Out of Town Total No of Dwellings: 250 Survey date: TUESDAY 12/10/21		Survey Type: MANUAL
24	ST-03-A-07 BEACONSIDE STAFFORD MARSTON GATE	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 248 Survey date: WEDNESDAY 22/11/17		Survey Type: MANUAL
25	WS-03-A-08 ROUNDSTONE LANE ANGMERING	MIXED HOUSES	WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 180 Survey date: THURSDAY 19/04/18		Survey Type: MANUAL
26	WS-03-A-11 ELLIS ROAD WEST HORSHAM S BROADBRIDGE HEATH	MIXED HOUSES	WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 918 Survey date: TUESDAY 02/04/19		Survey Type: MANUAL
27	WS-03-A-18 LONDON ROAD HASSOCKS	MIXED HOUSES & FLATS	WEST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 156 Survey date: MONDAY 15/05/23		Survey Type: MANUAL
28	WS-03-A-21 HILLAND ROAD BILLINGSHURST	MIXED HOUSES	WEST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 480 Survey date: THURSDAY 09/11/23		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

29	WS-03-A-23	MIXED HOUSES & FLATS	WEST SUSSEX
	TURNERS HILL ROAD		
	EAST GRINSTEAD		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:		197
	Survey date: TUESDAY		14/05/24
			Survey Type: MANUAL
30	WS-03-A-24	MIXED HOUSES	WEST SUSSEX
	MADGWICK LANE		
	CHICHESTER		
	WESTHAMPNETT		
	Edge of Town		
	Village		
	Total No of Dwellings:		300
	Survey date: THURSDAY		23/05/24
			Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
HC-03-A-26	24/06/21	Covid
SF-03-A-09	24/06/21	Covid
WS-03-A-13	23/06/21	Covid

Paragon Highways The Nostell Estate Wakefield

Licence No: 742101

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Ranking Type: TOTALS

Time Range: 17:00-18:00

CALCULATION FACTOR 1 DWELLS

15th Percentile = No. 26 KC-03-A-08 Tot: 0.308

85th Percentile = No. 5 KC-03-A-07 Tot: 0.593

Median Values

Arrivals: 0.325

Departures: 0.136

Totals: 0.461

Mean Values

Arrivals: 0.315

Departures: 0.149

Totals: 0.464

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	SP-03-A-02	MIXED HOUSES &	NEAR SOUTHAMPTON	SOUTHAMPTON	250	Tue	12/10/21	0.528	0.216	0.744	2.44
2	NF-03-A-38	MIXED HOUSES	GREAT YARMOUTH	NORFOLK	537	Tue	20/09/22	0.426	0.272	0.698	2.56
3	NF-03-A-06	MIXED HOUSES	GREAT YARMOUTH	NORFOLK	275	Mon	23/09/19	0.440	0.218	0.658	2.13
4	ES-03-A-03	MIXED HOUSES &	POLEGATE	EAST SUSSEX	212	Mon	11/07/16	0.434	0.217	0.651	1.68
5	KC-03-A-07	MIXED HOUSES	HERNE BAY	KENT	288	Wed	27/09/17	0.444	0.149	0.593	3.09
6	NF-03-A-23	MIXED HOUSES &	WYMONDHAM	NORFOLK	514	Wed	22/09/21	0.393	0.198	0.591	2.48
7	WS-03-A-11	MIXED HOUSES	WEST HORSHAM	WEST SUSSEX	918	Tue	02/04/19	0.415	0.168	0.583	2.06
8	KC-03-A-06	MIXED HOUSES &	HERNE BAY	KENT	363	Wed	27/09/17	0.380	0.198	0.578	2.17
9	KC-03-A-12	MIXED HOUSES &	FAVERSHAM	KENT	186	Tue	19/09/23	0.371	0.183	0.554	2.23
10	HC-03-A-38	MIXED HOUSES &	RINGWOOD	HAMPSHIRE	195	Wed	26/06/24	0.374	0.179	0.553	2.53
11	WS-03-A-23	MIXED HOUSES &	EAST GRINSTEAD	WEST SUSSEX	197	Tue	14/05/24	0.330	0.203	0.533	2.73
12	NF-03-A-28	MIXED HOUSES &	NORWICH	NORFOLK	1146	Thu	22/09/22	0.331	0.162	0.493	2.15
13	DY-03-A-01	MIXED HOUSES	DERBY	DERBY	371	Tue	10/07/18	0.407	0.084	0.491	2.92
14	WS-03-A-08	MIXED HOUSES	ANGMERING	WEST SUSSEX	180	Thu	19/04/18	0.278	0.206	0.484	2.93
15	NF-03-A-39	MIXED HOUSES	HOLT	NORFOLK	212	Tue	27/09/22	0.297	0.165	0.462	2.31
16	HC-03-A-35	MIXED HOUSES &	WATERLOOVILLE	HAMPSHIRE	289	Tue	31/10/23	0.353	0.107	0.460	2.63
17	SC-03-A-08	MIXED HOUSES	HORLEY	SURREY	790	Wed	04/05/22	0.353	0.105	0.458	2.20
18	HF-03-A-03	MIXED HOUSES	BUNTINGFORD	HERTFORDSHIRE	160	Mon	08/07/19	0.287	0.169	0.456	3.95
19	ST-03-A-07	DETACHED & SEM	STAFFORD	STAFFORDSHIRE	248	Wed	22/11/17	0.319	0.125	0.444	3.55
20	SC-03-A-12	MIXED HOUSES &	GODALMING	SURREY	252	Wed	12/06/24	0.258	0.167	0.425	2.22
21	NF-03-A-09	MIXED HOUSES &	NORWICH	NORFOLK	984	Tue	24/09/19	0.246	0.160	0.406	2.35
22	NF-03-A-46	MIXED HOUSES &	AYLSHAM	NORFOLK	300	Tue	14/09/21	0.240	0.163	0.403	2.41
23	HC-03-A-34	MIXED HOUSES &	EASTLEIGH	HAMPSHIRE	243	Tue	14/11/23	0.325	0.066	0.391	2.19
24	NF-03-A-30	MIXED HOUSES	SWAFFHAM	NORFOLK	266	Thu	23/09/21	0.271	0.120	0.391	2.84
25	WS-03-A-21	MIXED HOUSES	BILLINGSHURST	WEST SUSSEX	480	Thu	09/11/23	0.252	0.125	0.377	2.31
26	KC-03-A-08	MIXED HOUSES	CHARING	KENT	159	Tue	22/05/18	0.220	0.088	0.308	3.02
27	KC-03-A-11	MIXED HOUSES &	GRAVESEND	KENT	375	Mon	20/03/23	0.176	0.085	0.261	1.92
28	WS-03-A-18	MIXED HOUSES &	HASSOCKS	WEST SUSSEX	156	Mon	15/05/23	0.160	0.077	0.237	2.10
29	WS-03-A-24	MIXED HOUSES	CHICHESTER	WEST SUSSEX	300	Thu	23/05/24	0.090	0.060	0.150	2.59
30	HF-03-A-06	MIXED HOUSES &	ROYSTON	HERTFORDSHIRE	180	Tue	28/11/23	0.061	0.039	0.100	2.03

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

Appendix E

Traffic Flows, Distribution & NOMIS

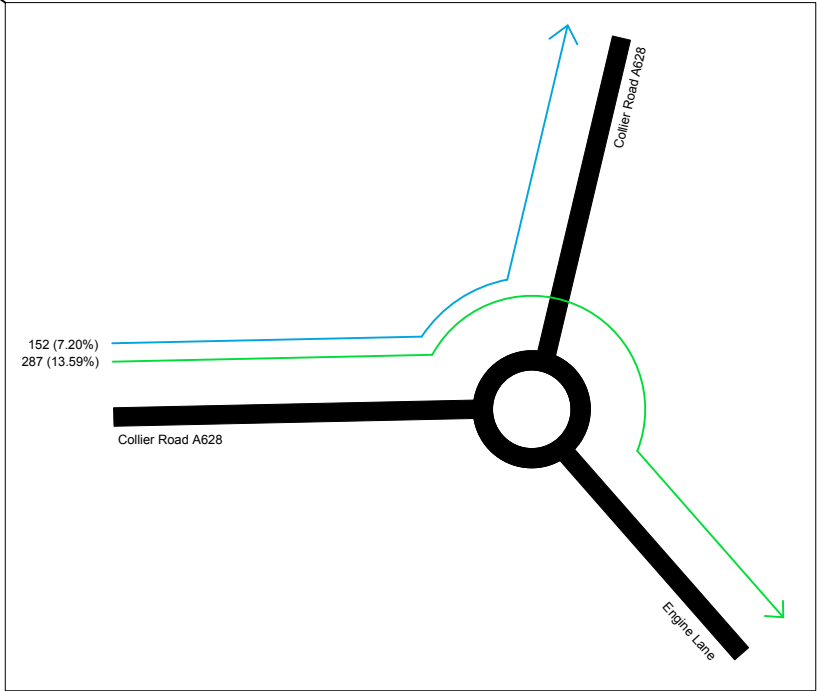
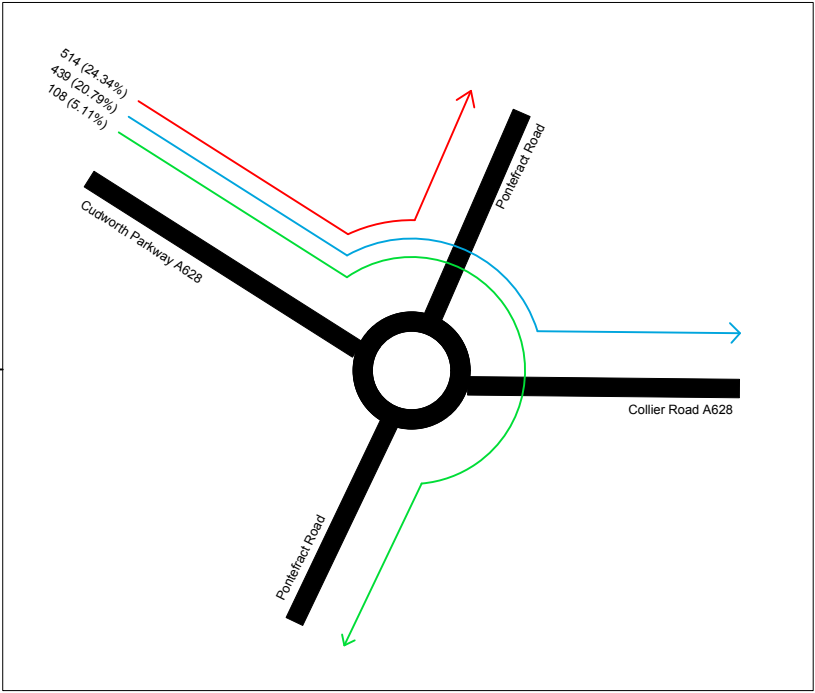
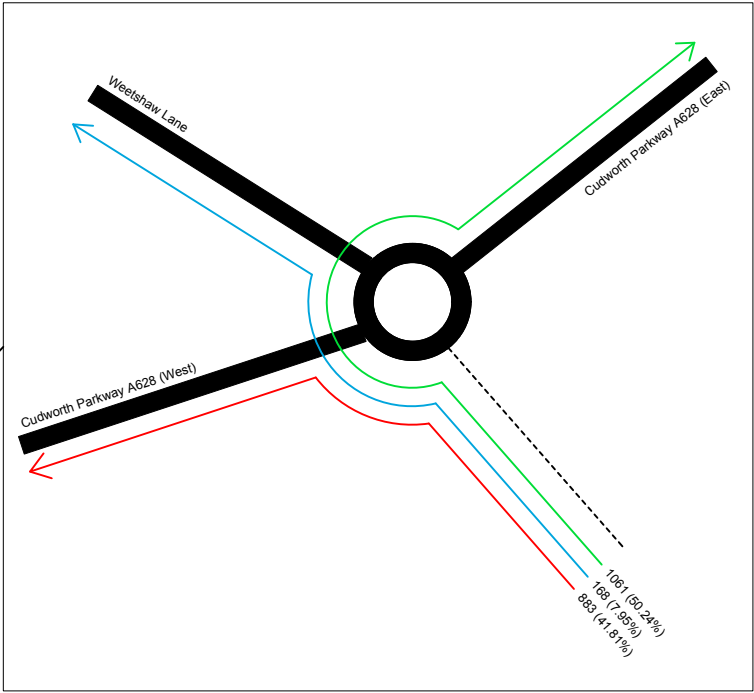
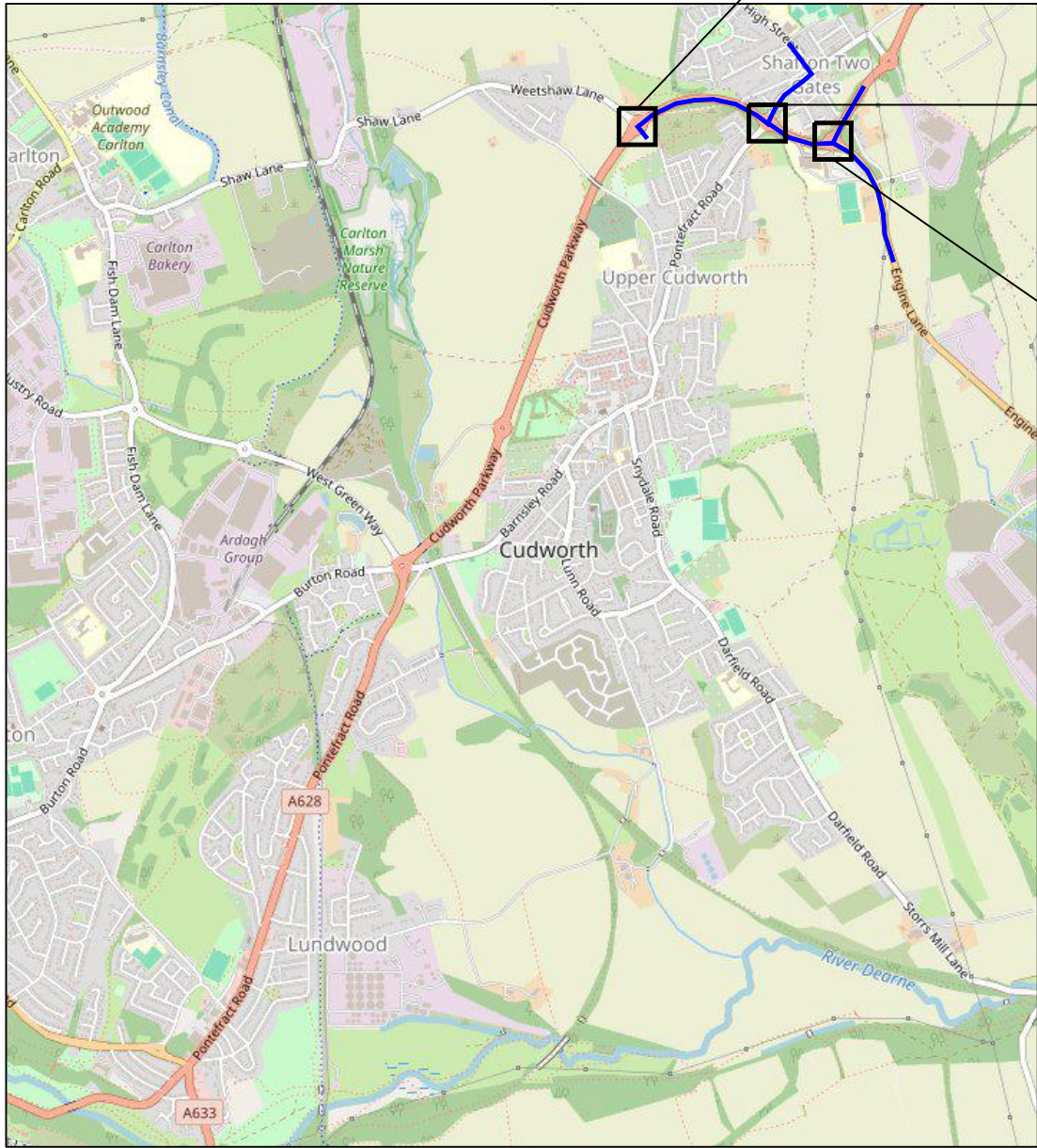
WU01EW - Location of usual residence and place of work by sex (MSOA level)

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population
units
date
sex

All usual residents aged 16 and over in employment the week before the census
Persons
2011
All persons

		Cudworth Parkway East A628						Collier Road East A628		Cudworth Parkway West A628				Pontefract Road A628		
	usual residence	Weetshaw Lane Roundabout			Shafton Roundabout			Engine Lane Roundabout		Pontefract Road Roundabout				Pontefract Road/A633 Cross Roads		
place of work	E02001511 : Barnsley 003	Cudworth Parkway West A628	Weetshaw Lane	Cudworth Parkway East A628	Pontefract Road North	Collier Road East A628	Pontefract Road South	Collier Road North A628	Engine Lane A6195	Barnsley Road	Pontefract Road A628	Burton Road	W Green way	A633 South	Pontefract Road A628	A633 North
Bradford	13			13	13											
Calderdale	3		3													
Craven	0															
Doncaster	70			70		70		70								
East Riding of Yorkshire	2			2		2		2								
Hambleton	1			1		1		1								
Harrogate	1			1		1		1								
Kingston upon Hull, City of	0															
Kirkstall	39		39													
Leeds	107			107	107											
North East Lincolnshire	0															
North Lincolnshire	2			2		2			2							
Richmondshire	2			2		2		2								
Rotherham	139			139		139			139							
Ryedale	1			1		1		1								
Scarborough	0															
Selby	17			17		17		17								
Sheffield	110	110									110			110		
Wakefield	394			394	394											
York	7			7		7		7								
E02001509 : Barnsley 001	15		15													
E02001510 : Barnsley 002	111		111													
E02001512 : Barnsley 004	12	12											12			
E02001513 : Barnsley 005	23	23											23			
E02001514 : Barnsley 006	102			102		102		51	51							
E02001515 : Barnsley 007	52	52											52			
E02001516 : Barnsley 008	108			108			108									
E02001517 : Barnsley 009	18	18										18				
E02001518 : Barnsley 010	59	59										59				
E02001519 : Barnsley 011	58	58									58					
E02001520 : Barnsley 012	111	111									111				111	
E02001521 : Barnsley 013	263	263									263				263	
E02001522 : Barnsley 014	10			10		10			10							
E02001523 : Barnsley 015	71	71				71					71			71		
E02001524 : Barnsley 016	7	7									7				7	
E02001525 : Barnsley 017	29	29									29				29	
E02001526 : Barnsley 018	12	12									12			12		
E02001527 : Barnsley 019	15	15									15				15	
E02001528 : Barnsley 020	15			15		15			15							
E02001529 : Barnsley 021	19	19									19			19		
E02001530 : Barnsley 022	15			15		15										
E02001531 : Barnsley 023	17			17		17			17							
E02001532 : Barnsley 024	6	6									6				6	
E02001533 : Barnsley 025	4			4		4			4							
E02001534 : Barnsley 026	23			23		23			23							
E02001535 : Barnsley 027	9	9									9				9	
E02001536 : Barnsley 028	9	9									9			9		
E02001537 : Barnsley 029	5			5		5			5					5		
E02001538 : Barnsley 030	6			6		6			6							
TOTAL	2,112	883	168	1061	514	499	108	152	287	0	719	77	87	221	440	0
%	100.00%	41.81%	7.95%	50.24%	24.34%	20.79%	5.11%	7.20%	13.59%	0.00%	34.04%	3.65%	4.12%	10.46%	20.83%	0.00%
Proposed Development Trips		38	7	45	22	19	5	6	12	0	31	3	4	9	19	0



PROJECT TITLE
CUDWORTH PARKWAY, CUDWORTH

DRAWING TITLE
TRAFFIC FLOWS – EAST

DRAWING NUMBER	PROJECT	VOL.	TYPE	ROLE	NUMBER
PRGN - 2466	HGN	DR	CH	0001	

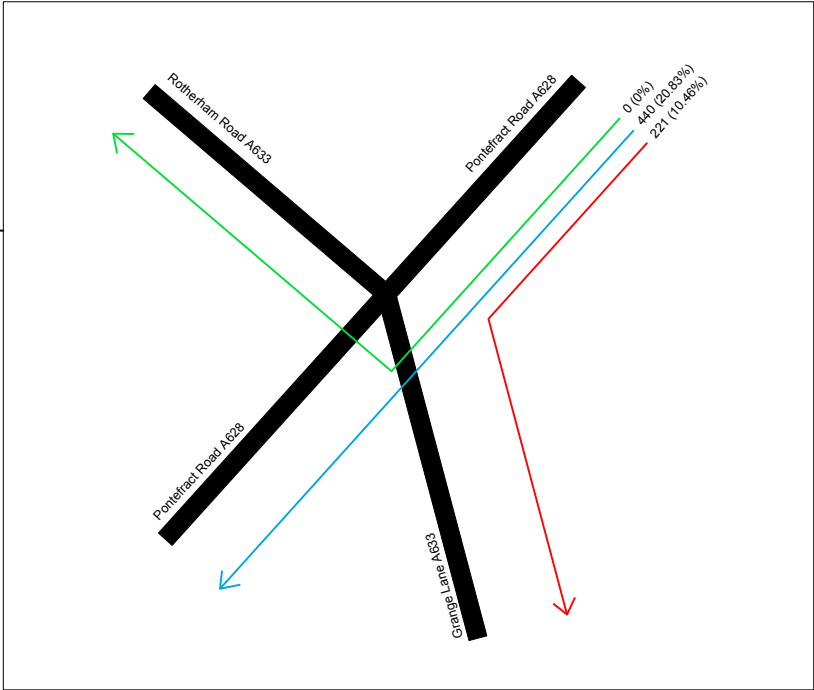
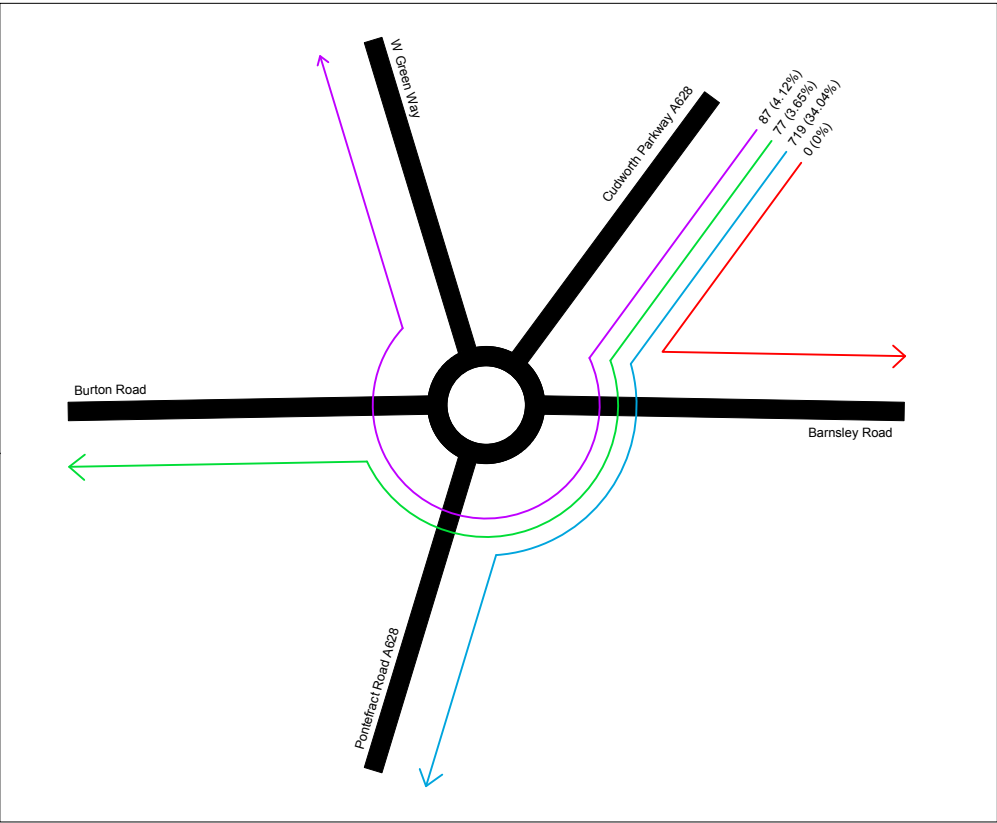
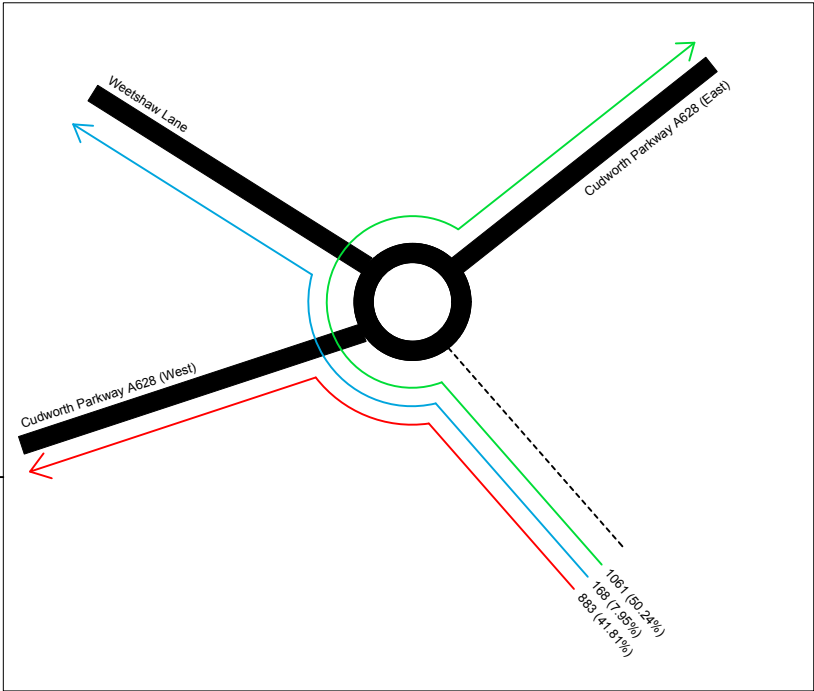
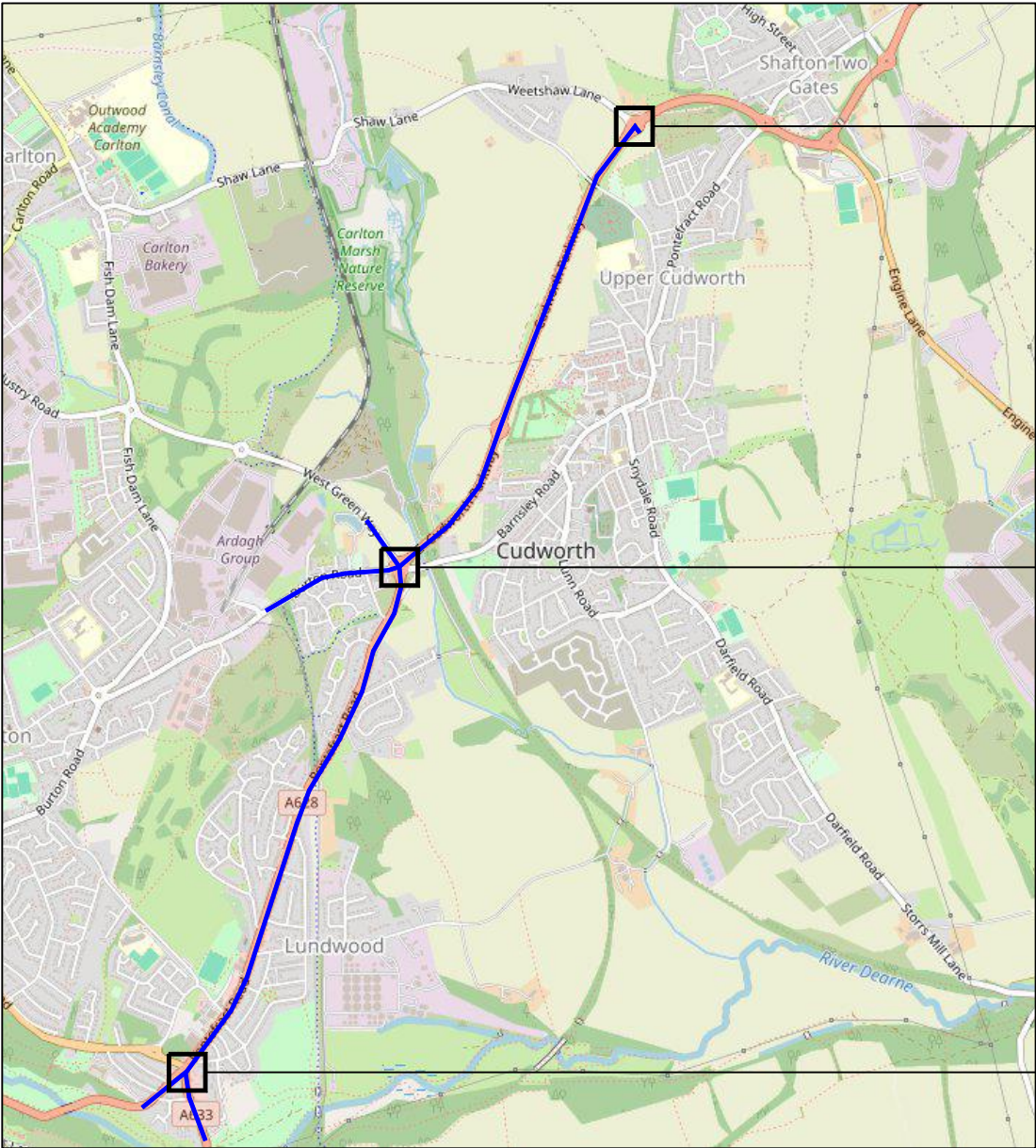
CLIENT
PAUL ZASZEWSKI

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
NTS	A3	JH	LJO	LJO	JUL 2025

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PEACH HOUSE WEST, THE WALLED GARDEN
NOSTELL ESTATE YARD
WAKEFIELD WF4 1AB

01924 291536
MAIL@PARAGONHIGHWAYS.COM

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PROJECT TITLE
CUDWORTH PARKWAY, CUDWORTH

DRAWING TITLE
TRAFFIC FLOWS - WEST

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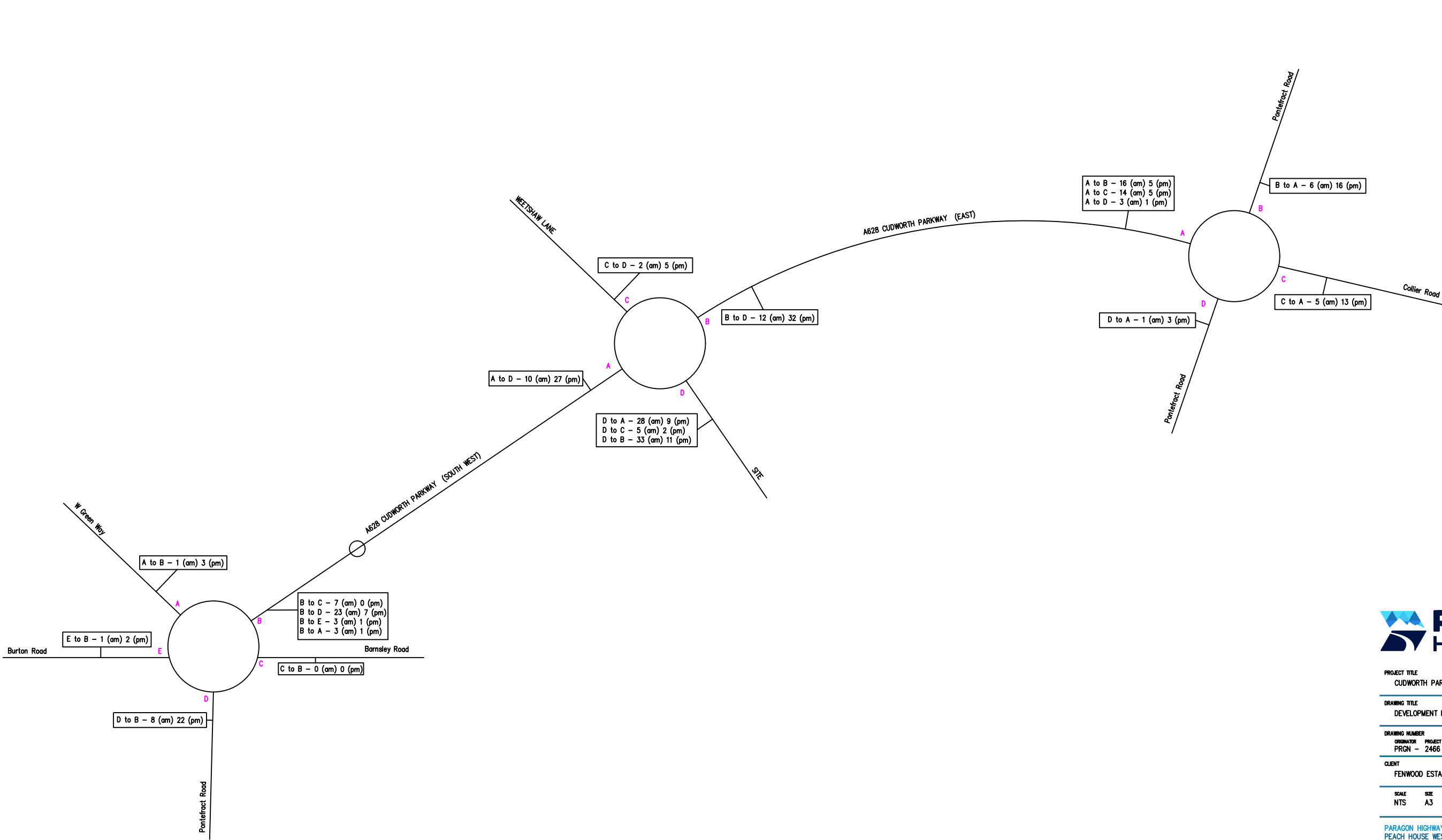
CLIENT
PAUL ZASZEWSKI

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
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PROJECT TITLE
CUDWORTH PARKWAY, CUDWORTH

DRAWING TITLE
DEVELOPMENT FLOWS

DRAWING NUMBER		PROJECT	VOL.	TYPE	ROLE	NUMBER
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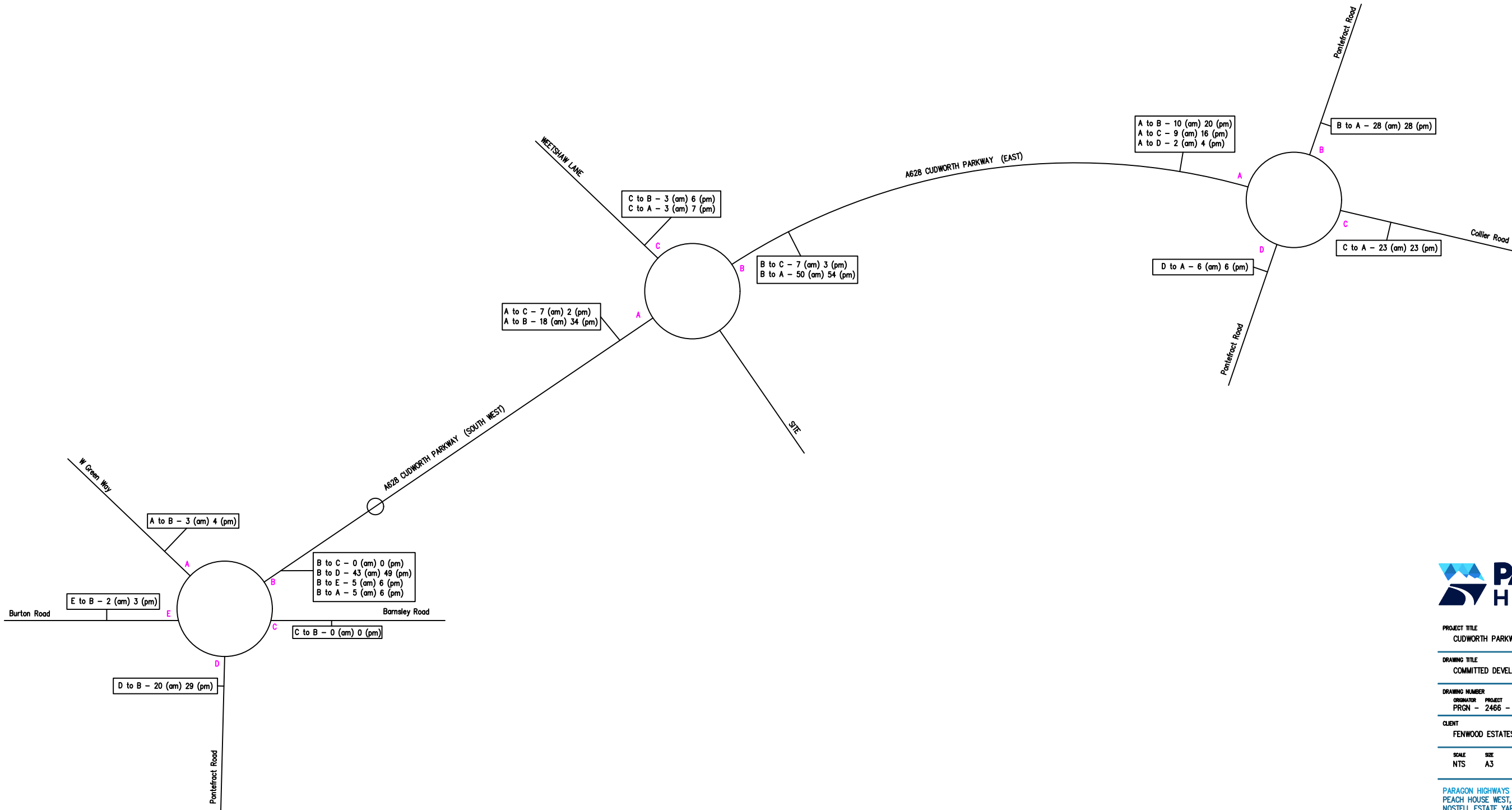
CLIENT
FENWOOD ESTATES

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
NTS	A3	LO	JJH	AH	APR 26

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PROJECT TITLE
CUDWORTH PARKWAY, CUDWORTH

DRAWING TITLE
COMMITTED DEVELOPMENT FLOWS

DRAWING NUMBER	PROJECT	VOL.	TYPE	ROLE	NUMBER
PRGN -	2466 -	HGN -	DR -	CH -	0202

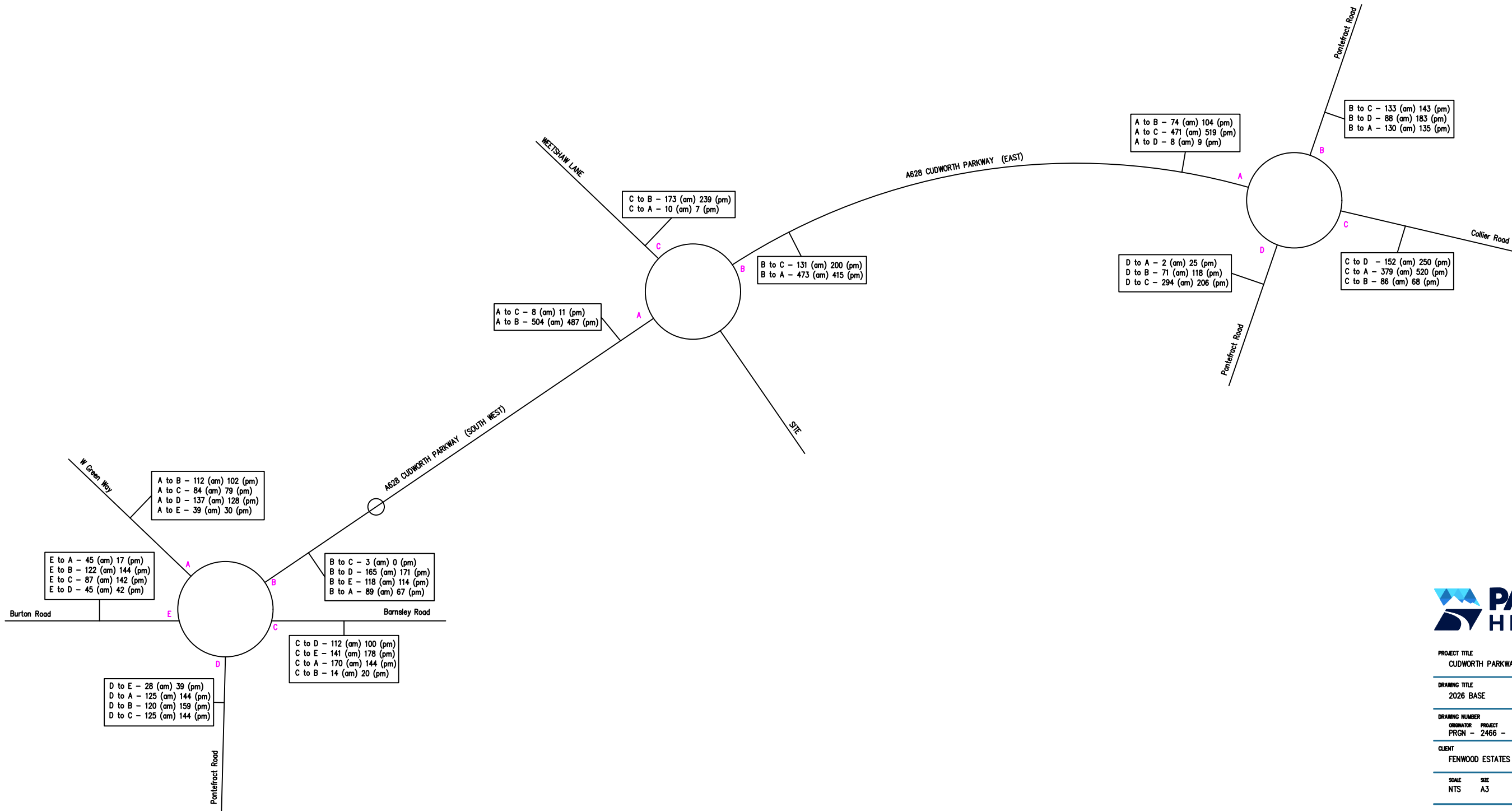
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FENWOOD ESTATES

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
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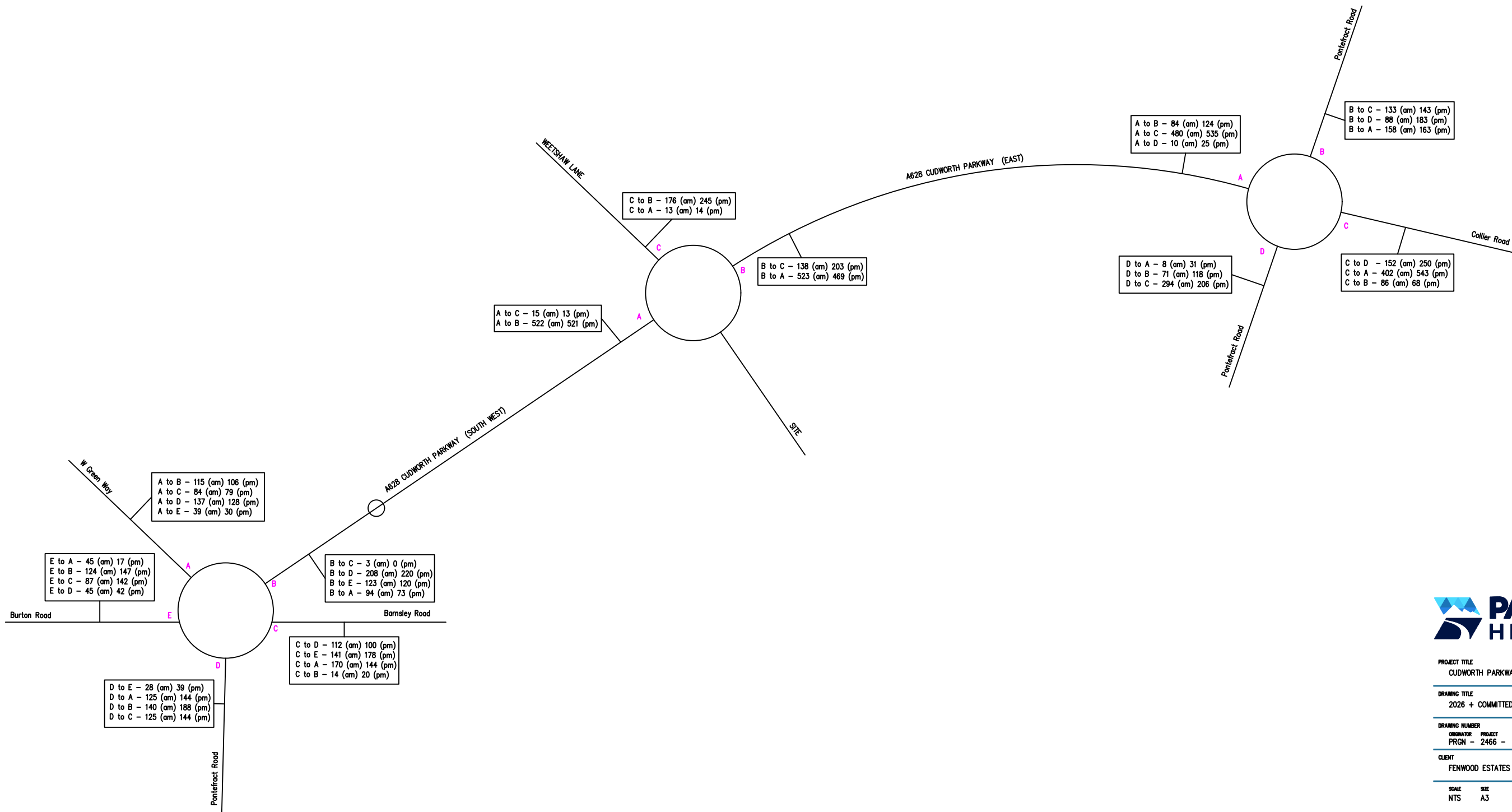
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PEACH HOUSE WEST, THE WALLED GARDEN
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WAKEFIELD WF4 1AB

01924 291536
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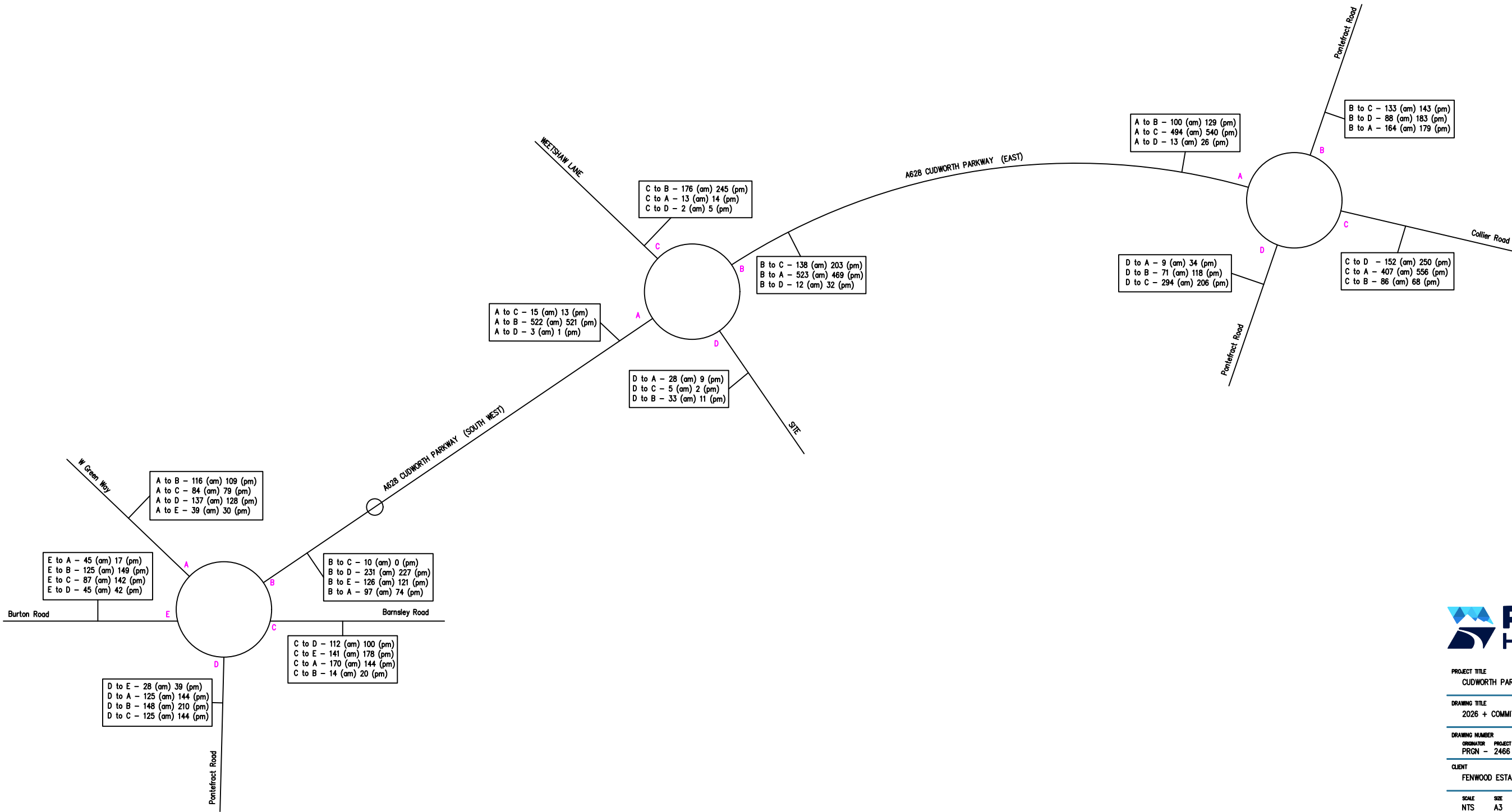
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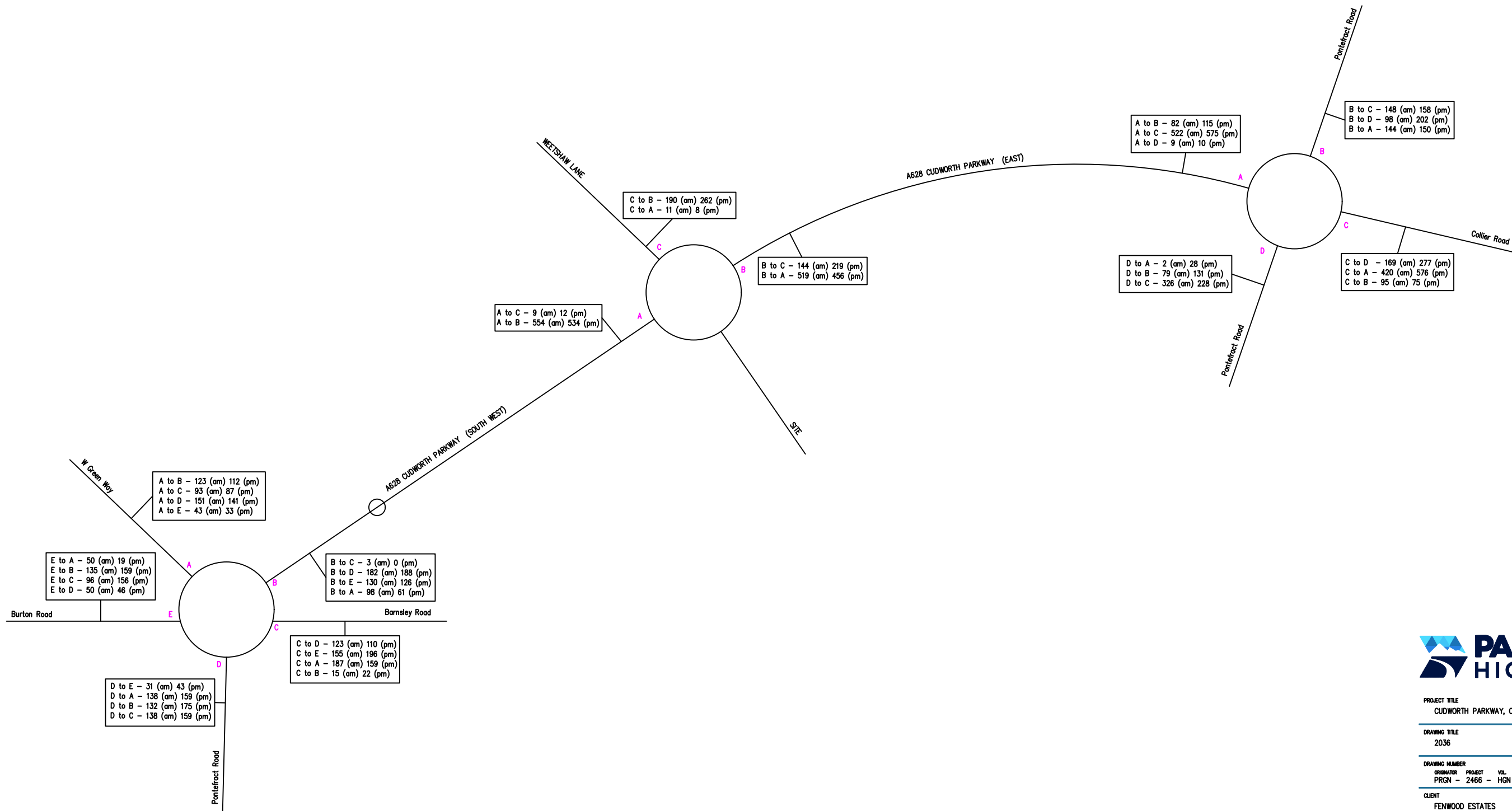
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DRAWING TITLE						
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DRAWING NUMBER						
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CLIENT						
FENWOOD ESTATES						
SCALE						
NTS	A3	DRWN	CHECKED	AUTHORISED	DATE	
		LO	JJH	AH	APR 26	



PROJECT TITLE						
CUDWORTH PARKWAY, CUDWORTH						
DRAWING TITLE						
2026 + COMMITTED DEVELOPMENT						
DRAWING NUMBER						
ORIGINATOR	PROJECT	VOL.	TYPE	ROLE	NUMBER	
PRGN -	2466 -	HGN	- DR	- CH	-	0204
CLIENT						
FENWOOD ESTATES						
SCALE						
NTS	A3	DRAWN	CHECKED	AUTHORISED	DATE	
		LO	JJH	AH	APR 26	



PROJECT TITLE						
CUDWORTH PARKWAY, CUDWORTH						
DRAWING TITLE						
2026 + COMMITTED + PROPOSED DEVELOPMENT						
DRAWING NUMBER						
ORIGINATOR	PROJECT	VOL.	TYPE	ROLE	NUMBER	
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CLIENT						
FENWOOD ESTATES						
SCALE						
NTS	A3	DRWN	CHECKED	AUTHORISED	DATE	
		LO	JJH	AH	APR 26	



PROJECT TITLE
CUDWORTH PARKWAY, CUDWORTH

DRAWING TITLE
2036

ORIGINATOR	PROJECT	VOL.	TYPE	ROLE	NUMBER
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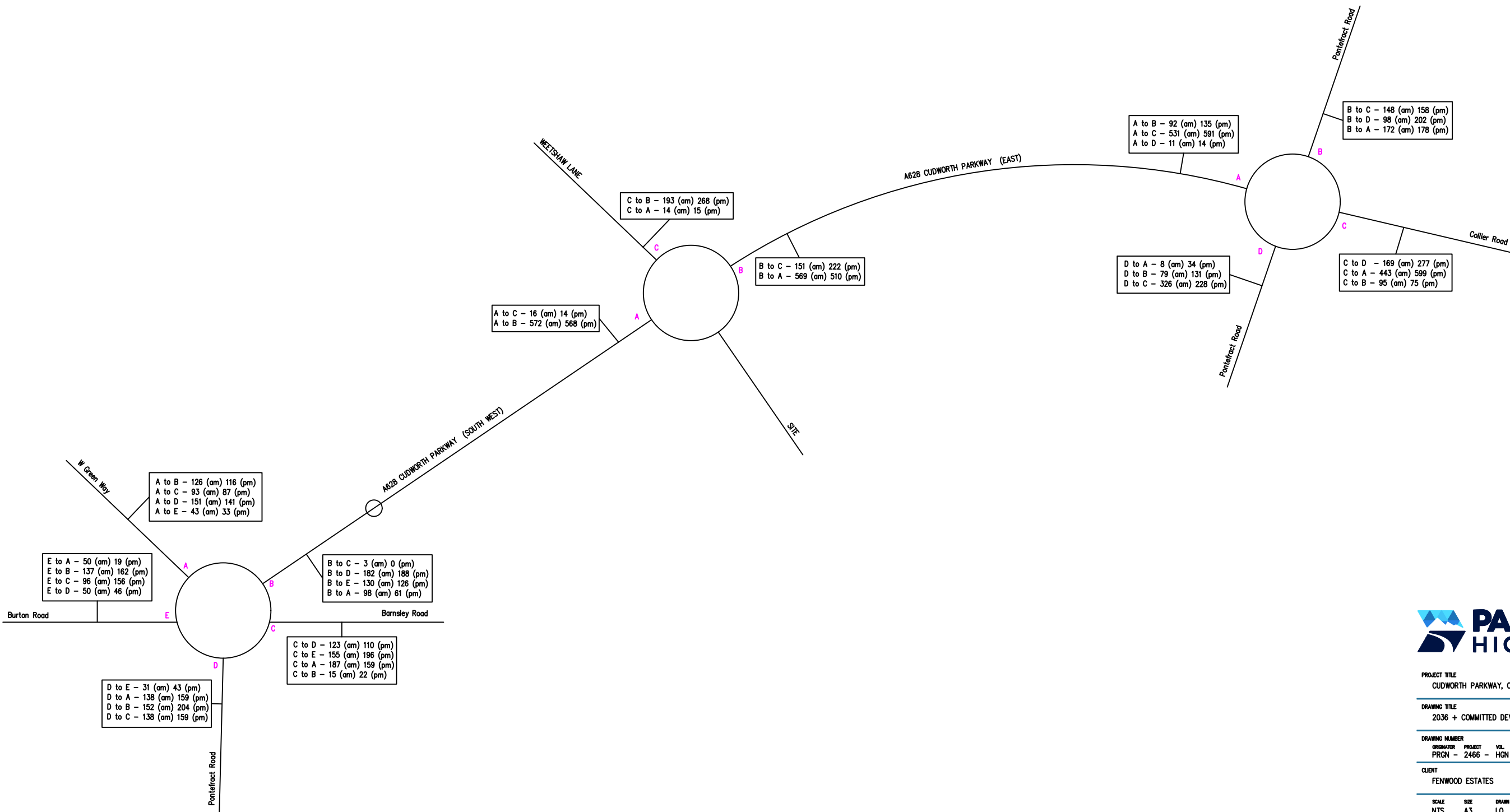
CLIENT
FENWOOD ESTATES

SCALE	SIZE	DRAWN	CHECKED	AUTHORISED	DATE
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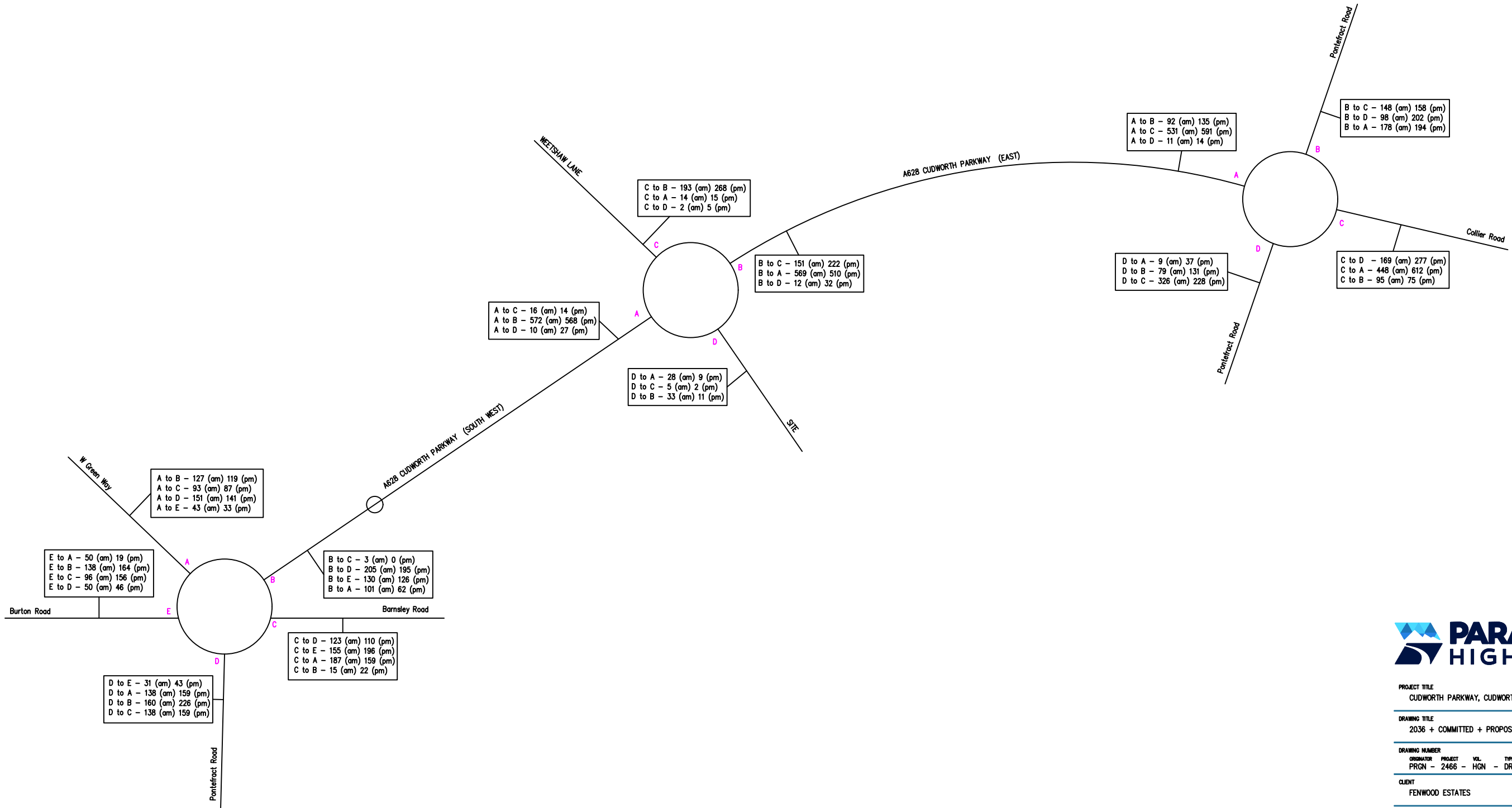
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PEACH HOUSE WEST, THE WALLED GARDEN
NOSTELL ESTATE YARD
WAKEFIELD WF4 1AB

01924 291536
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PROJECT TITLE						
CUDWORTH PARKWAY, CUDWORTH						
DRAWING TITLE						
2036 + COMMITTED DEVELOPMENT						
DRAWING NUMBER						
ORIGINATOR	PROJECT	VOL.	TYPE	ROLE	NUMBER	
PRGN -	2466 -	HGN -	DR -	CH -	0207	
CLIENT						
FENWOOD ESTATES						
SCALE						
NTS	A3	LO	JH	AH	APR 26	



PROJECT TITLE						
CUDWORTH PARKWAY, CUDWORTH						
DRAWING TITLE						
2036 + COMMITTED + PROPOSED DEVELOPMENT						
DRAWING NUMBER						
ORIGINATOR	PROJECT	VOL.	TYPE	ROLE	NUMBER	
PRGN -	2466 -	HGN -	DR -	CH -	0208	
CLIENT						
FENWOOD ESTATES						
SCALE						
NTS	A3	DRAWN LO	CHECKED JH	AUTHORISED AH	DATE	
					APR 26	

PARAGON HIGHWAYS
PEACH HOUSE WEST, THE WALLED GARDEN
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WAKEFIELD WF4 1AB

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Appendix F

ARCADY Output

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

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Filename: PONTEFRACT ROAD ROUNDABOUT - 2026 BASE.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Pontefract Road Roundabout
Report generation date: 4/24/2026 10:32:17 AM

»2026 | Base | AM
»2026 | Base | PM

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 - Base										
Arm C	D1	1.1	8.21	0.50	A	D2	1.1	7.87	0.49	A
Arm D		0.5	4.47	0.33	A		0.7	4.93	0.40	A
Arm E		0.6	6.79	0.36	A		0.8	7.76	0.43	A
Arm A		0.6	5.48	0.36	A		0.6	5.96	0.36	A
Arm B		0.5	3.94	0.29	A		0.4	3.98	0.28	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	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base	AM	ONE HOUR	00:00	01:30	15
D2	2026	Base	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 | 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		C, D, E, A, B	5.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.80	A

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRACT ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	437	100.000
D		✓	398	100.000
E		✓	299	100.000
A		✓	372	100.000
B		✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	112	141	170	14
	D	125	0	28	125	120
	E	87	45	0	45	122
	A	84	137	39	0	112
	B	3	165	118	89	0

Vehicle Mix

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.50	8.21	1.1	A
D	0.33	4.47	0.5	A
E	0.36	6.79	0.6	A
A	0.36	5.48	0.6	A
B	0.29	3.94	0.5	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	329	445	1086	0.303	327	0.5	5.206	A
D	300	428	1459	0.205	299	0.3	3.409	A
E	225	482	1042	0.216	224	0.3	4.834	A
A	280	384	1243	0.225	279	0.3	4.101	A
B	282	387	1536	0.184	281	0.2	3.152	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	393	533	1034	0.380	392	0.7	6.159	A
D	358	513	1402	0.255	357	0.4	3.790	A
E	269	577	987	0.272	268	0.4	5.506	A
A	334	461	1196	0.280	334	0.4	4.591	A
B	337	464	1485	0.227	337	0.3	3.447	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	481	652	964	0.499	480	1.1	8.149	A
D	438	627	1326	0.331	438	0.5	4.456	A
E	329	707	913	0.361	328	0.6	6.766	A
A	410	564	1133	0.362	409	0.6	5.466	A
B	413	568	1417	0.291	412	0.4	3.939	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	481	653	963	0.500	481	1.1	8.212	A
D	438	629	1325	0.331	438	0.5	4.467	A
E	329	708	912	0.361	329	0.6	6.794	A
A	410	565	1132	0.362	410	0.6	5.482	A
B	413	569	1417	0.291	413	0.5	3.945	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	393	534	1033	0.380	394	0.7	6.213	A
D	358	515	1401	0.255	358	0.4	3.800	A
E	269	579	986	0.273	270	0.4	5.536	A
A	334	462	1195	0.280	335	0.4	4.608	A
B	337	466	1484	0.227	338	0.3	3.456	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	329	447	1085	0.303	330	0.5	5.253	A
D	300	431	1457	0.206	300	0.3	3.425	A
E	225	485	1040	0.216	226	0.3	4.864	A
A	280	387	1242	0.226	280	0.3	4.121	A
B	282	390	1534	0.184	283	0.2	3.166	A

2026 | 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		C, D, E, A, B	6.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.10	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	Base	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	442	100.000
D		✓	486	100.000
E		✓	345	100.000
A		✓	339	100.000
B		✓	352	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		C	D	E	A	B
	C	0	100	178	144	20
	D	144	0	39	144	159
	E	142	42	0	17	144
	A	79	128	30	0	102
	B	0	171	114	67	0

Vehicle Mix

Heavy Vehicle %

	To					
		C	D	E	A	B
	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.49	7.87	1.1	A
D	0.40	4.93	0.7	A
E	0.43	7.76	0.8	A
A	0.36	5.96	0.6	A
B	0.28	3.98	0.4	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	333	414	1104	0.301	331	0.5	5.109	A
D	366	414	1468	0.249	364	0.4	3.583	A
E	260	508	1027	0.253	258	0.4	5.143	A
A	255	488	1179	0.216	254	0.3	4.274	A
B	265	423	1512	0.175	264	0.2	3.171	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	397	496	1056	0.376	397	0.7	6.000	A
D	437	496	1413	0.309	436	0.5	4.052	A
E	310	609	969	0.320	310	0.5	6.000	A
A	305	584	1120	0.272	304	0.4	4.854	A
B	316	507	1457	0.217	316	0.3	3.470	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	487	607	990	0.491	485	1.0	7.812	A
D	535	607	1339	0.400	534	0.7	4.914	A
E	380	745	891	0.426	379	0.8	7.716	A
A	373	715	1039	0.359	372	0.6	5.932	A
B	388	621	1383	0.280	387	0.4	3.975	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	487	608	990	0.492	487	1.1	7.867	A
D	535	609	1338	0.400	535	0.7	4.932	A
E	380	746	890	0.427	380	0.8	7.763	A
A	373	717	1038	0.360	373	0.6	5.956	A
B	388	622	1382	0.280	388	0.4	3.982	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	397	497	1055	0.377	399	0.7	6.051	A
D	437	499	1412	0.309	438	0.5	4.071	A
E	310	611	968	0.321	311	0.5	6.045	A
A	305	587	1118	0.273	306	0.4	4.877	A
B	316	509	1456	0.217	317	0.3	3.480	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	333	416	1103	0.302	334	0.5	5.154	A
D	366	417	1466	0.250	366	0.4	3.601	A
E	260	511	1025	0.253	260	0.4	5.181	A
A	255	491	1177	0.217	256	0.3	4.299	A
B	265	426	1510	0.175	265	0.2	3.180	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: PONTEFRACT ROAD ROUNDABOUT - 2026 BASE PLUS COMMITTED.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Pontefract Road Roundabout
Report generation date: 4/24/2026 10:33:58 AM

»2026 | Base PLUS COMMITTED | AM
»2026 | Base PLUS COMMITTED | PM

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 - Base PLUS COMMITTED										
Arm C	D1	1.2	8.84	0.52	A	D2	1.1	8.54	0.51	A
Arm D		0.6	4.62	0.35	A		0.8	5.20	0.43	A
Arm E		0.6	7.01	0.37	A		0.9	8.17	0.44	A
Arm A		0.6	5.62	0.37	A		0.6	6.20	0.37	A
Arm B		0.5	4.19	0.33	A		0.5	4.27	0.33	A

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

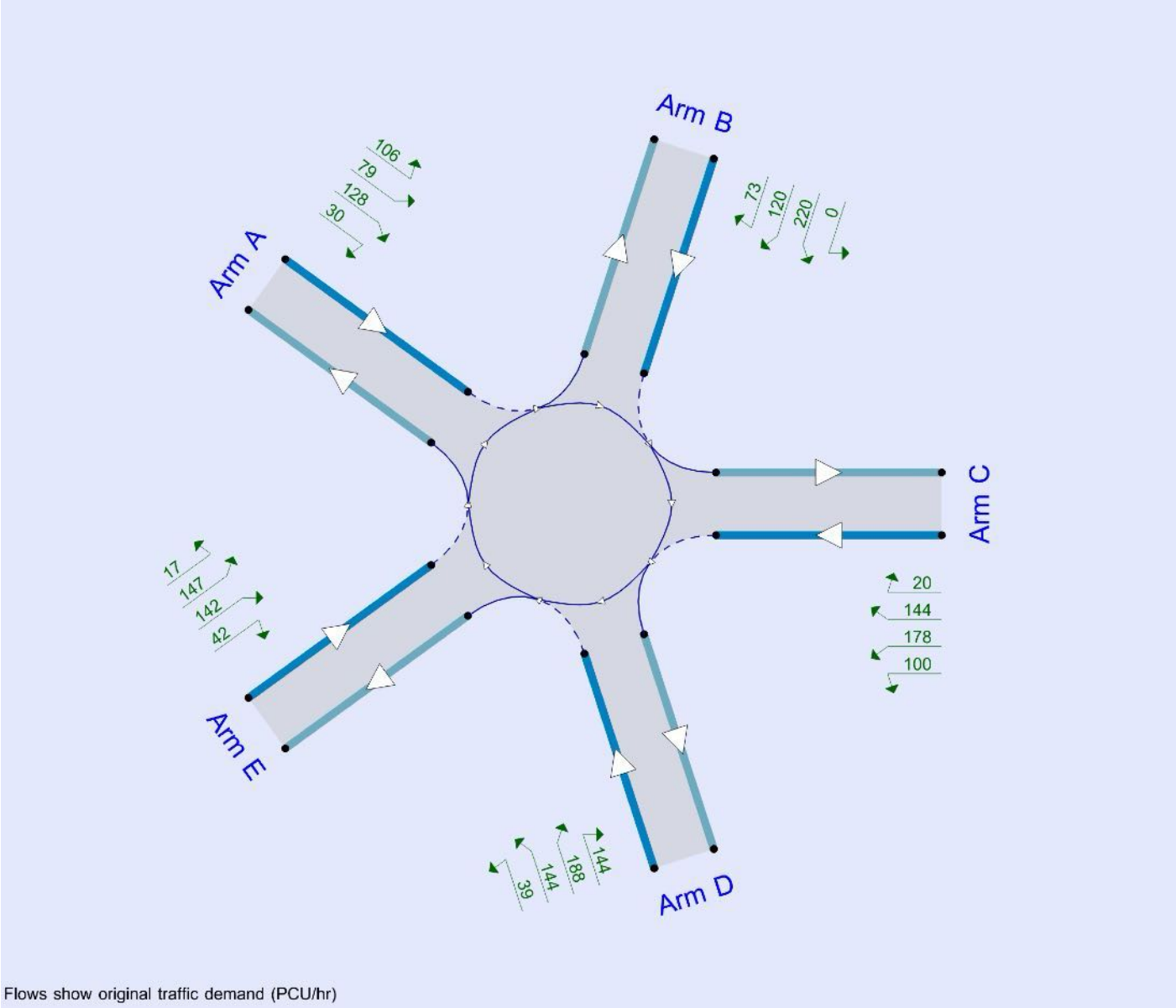
File summary

File Description

Title	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15
D2	2026	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 | Base PLUS COMMITTED | 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		C, D, E, A, B	6.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.03	A

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRACT ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	437	100.000
D		✓	418	100.000
E		✓	301	100.000
A		✓	375	100.000
B		✓	428	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	112	141	170	14
	D	125	0	28	125	140
	E	87	45	0	45	124
	A	84	137	39	0	115
	B	3	208	123	94	0

Vehicle Mix

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.52	8.84	1.2	A
D	0.35	4.62	0.6	A
E	0.37	7.01	0.6	A
A	0.37	5.62	0.6	A
B	0.33	4.19	0.5	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	329	484	1063	0.310	327	0.5	5.370	A
D	315	435	1454	0.216	313	0.3	3.469	A
E	227	501	1031	0.220	225	0.3	4.908	A
A	282	401	1233	0.229	281	0.3	4.155	A
B	322	387	1536	0.210	321	0.3	3.257	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	393	580	1006	0.390	392	0.7	6.438	A
D	376	521	1396	0.269	375	0.4	3.875	A
E	271	600	974	0.278	270	0.4	5.620	A
A	337	480	1184	0.285	337	0.4	4.672	A
B	385	464	1485	0.259	384	0.4	3.596	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	481	710	930	0.518	479	1.2	8.759	A
D	460	638	1318	0.349	459	0.6	4.607	A
E	331	734	897	0.369	331	0.6	6.980	A
A	413	588	1118	0.369	412	0.6	5.607	A
B	471	568	1417	0.333	471	0.5	4.180	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	481	711	929	0.518	481	1.2	8.841	A
D	460	640	1317	0.349	460	0.6	4.620	A
E	331	735	896	0.370	331	0.6	7.011	A
A	413	589	1117	0.370	413	0.6	5.624	A
B	471	569	1417	0.333	471	0.5	4.188	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	393	582	1005	0.391	395	0.7	6.508	A
D	376	524	1395	0.269	376	0.4	3.891	A
E	271	602	973	0.278	271	0.4	5.652	A
A	337	482	1183	0.285	338	0.4	4.691	A
B	385	466	1484	0.259	385	0.4	3.604	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	329	487	1061	0.310	330	0.5	5.423	A
D	315	438	1452	0.217	315	0.3	3.483	A
E	227	504	1029	0.220	227	0.3	4.939	A
A	282	403	1231	0.229	283	0.3	4.177	A
B	322	390	1534	0.210	323	0.3	3.268	A

2026 | Base PLUS COMMITTED | 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		C, D, E, A, B	6.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.40	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	442	100.000
D		✓	515	100.000
E		✓	348	100.000
A		✓	343	100.000
B		✓	413	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		C	D	E	A	B
	C	0	100	178	144	20
	D	144	0	39	144	188
	E	142	42	0	17	147
	A	79	128	30	0	106
	B	0	220	120	73	0

Vehicle Mix

Heavy Vehicle %

From	To					
		C	D	E	A	B
	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.51	8.54	1.1	A
D	0.43	5.20	0.8	A
E	0.44	8.17	0.9	A
A	0.37	6.20	0.6	A
B	0.33	4.27	0.5	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	333	460	1077	0.309	331	0.5	5.291	A
D	388	423	1462	0.265	386	0.4	3.675	A
E	262	534	1012	0.259	260	0.4	5.260	A
A	258	512	1165	0.222	257	0.3	4.358	A
B	311	423	1512	0.206	310	0.3	3.290	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	397	550	1024	0.388	397	0.7	6.307	A
D	463	507	1406	0.329	462	0.5	4.193	A
E	313	640	951	0.329	312	0.5	6.195	A
A	308	613	1102	0.280	308	0.4	4.984	A
B	371	507	1457	0.255	371	0.4	3.645	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	487	674	951	0.512	485	1.1	8.463	A
D	567	620	1330	0.426	566	0.8	5.174	A
E	383	783	869	0.441	382	0.9	8.113	A
A	378	750	1018	0.371	377	0.6	6.171	A
B	455	620	1383	0.329	454	0.5	4.261	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	487	675	950	0.512	487	1.1	8.540	A
D	567	622	1329	0.427	567	0.8	5.196	A
E	383	785	868	0.442	383	0.9	8.171	A
A	378	752	1016	0.372	378	0.6	6.199	A
B	455	622	1382	0.329	455	0.5	4.270	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	397	552	1023	0.389	399	0.7	6.370	A
D	463	510	1404	0.330	464	0.5	4.217	A
E	313	643	949	0.329	314	0.5	6.246	A
A	308	616	1100	0.280	309	0.4	5.011	A
B	371	509	1456	0.255	372	0.4	3.655	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	333	462	1076	0.309	334	0.5	5.343	A
D	388	426	1460	0.266	388	0.4	3.695	A
E	262	538	1010	0.259	263	0.4	5.303	A
A	258	515	1162	0.222	259	0.3	4.385	A
B	311	426	1510	0.206	311	0.3	3.305	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: PONTEFRACT ROAD ROUNDABOUT - 2026 BASE PLUS COMMITTED PLUS DEVELOPMENT.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Pontefract Road Roundabout
Report generation date: 4/24/2026 10:37:17 AM

»2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM
»2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 - Base PLUS COMMITTED PLUS DEVELOPMENT										
Arm C	D1	1.2	9.23	0.53	A	D2	1.2	8.65	0.52	A
Arm D		0.6	4.69	0.36	A		0.9	5.38	0.45	A
Arm E		0.7	7.11	0.37	A		0.9	8.46	0.45	A
Arm A		0.7	5.68	0.37	A		0.7	6.40	0.38	A
Arm B		0.6	4.37	0.36	A		0.6	4.32	0.34	A

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.

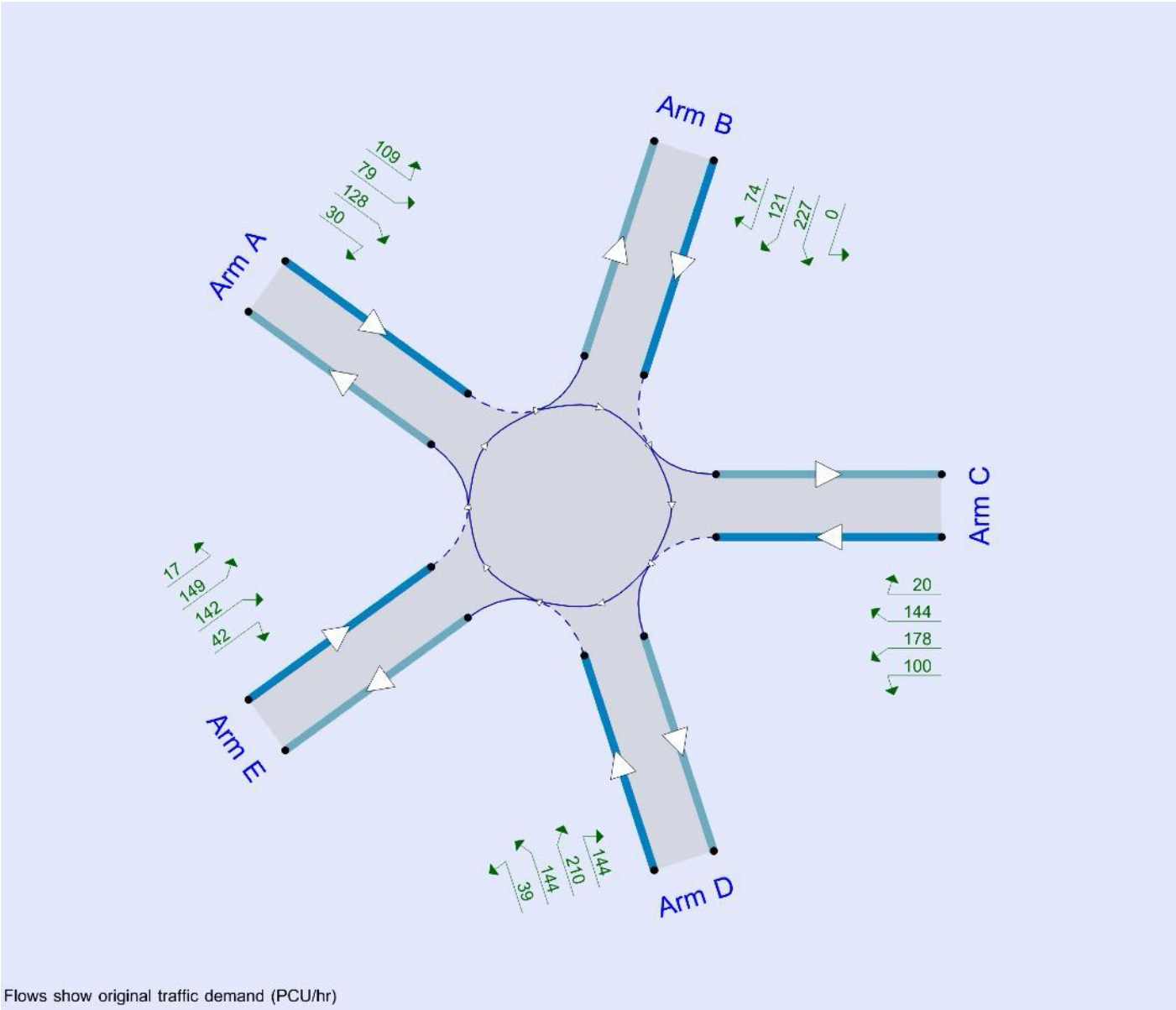
File summary

File Description

Title	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15
D2	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2026 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, E, A, B	6.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.16	A

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSLEY ROAD		
D	PONTEFRACT ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	437	100.000
D		✓	426	100.000
E		✓	302	100.000
A		✓	376	100.000
B		✓	464	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	112	141	170	14
	D	125	0	28	125	148
	E	87	45	0	45	125
	A	84	137	39	0	116
	B	10	231	126	97	0

Vehicle Mix

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.53	9.23	1.2	A
D	0.36	4.69	0.6	A
E	0.37	7.11	0.7	A
A	0.37	5.68	0.7	A
B	0.36	4.37	0.6	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	329	506	1050	0.313	327	0.5	5.465	A
D	321	440	1451	0.221	319	0.3	3.496	A
E	227	509	1026	0.222	226	0.3	4.941	A
A	283	408	1229	0.230	282	0.3	4.175	A
B	349	387	1536	0.227	348	0.3	3.331	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	393	606	991	0.396	392	0.7	6.603	A
D	383	527	1393	0.275	383	0.4	3.918	A
E	271	610	969	0.280	271	0.4	5.673	A
A	338	488	1179	0.287	338	0.4	4.704	A
B	417	464	1485	0.281	417	0.4	3.702	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	481	742	911	0.528	479	1.2	9.134	A
D	469	644	1314	0.357	468	0.6	4.678	A
E	333	746	890	0.374	332	0.6	7.078	A
A	414	598	1112	0.372	413	0.6	5.663	A
B	511	568	1417	0.360	510	0.6	4.361	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	481	743	910	0.529	481	1.2	9.229	A
D	469	646	1313	0.357	469	0.6	4.693	A
E	333	748	889	0.374	332	0.7	7.112	A
A	414	599	1111	0.373	414	0.7	5.682	A
B	511	569	1417	0.361	511	0.6	4.372	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	393	608	990	0.397	395	0.7	6.680	A
D	383	530	1391	0.275	384	0.4	3.934	A
E	271	612	967	0.281	272	0.4	5.706	A
A	338	490	1178	0.287	339	0.4	4.726	A
B	417	466	1484	0.281	418	0.4	3.714	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	329	509	1048	0.314	330	0.5	5.519	A
D	321	443	1449	0.221	321	0.3	3.514	A
E	227	512	1025	0.222	228	0.3	4.974	A
A	283	410	1227	0.231	284	0.3	4.199	A
B	349	390	1534	0.228	350	0.3	3.343	A

2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2026 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, E, A, B	6.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.54	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	442	100.000
D		✓	537	100.000
E		✓	350	100.000
A		✓	346	100.000
B		✓	422	100.000

Origin-Destination Data

Demand (PCU/hr)

		To					
From		C	D	E	A	B	
	C	0	100	178	144	20	
	D	144	0	39	144	210	
	E	142	42	0	17	149	
	A	79	128	30	0	109	
	B	0	227	121	74	0	

Vehicle Mix

Heavy Vehicle %

From	To					
		C	D	E	A	B
	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.52	8.65	1.2	A
D	0.45	5.38	0.9	A
E	0.45	8.46	0.9	A
A	0.38	6.40	0.7	A
B	0.34	4.32	0.6	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	333	466	1073	0.310	331	0.5	5.320	A
D	404	425	1461	0.277	403	0.4	3.729	A
E	263	552	1002	0.263	262	0.4	5.341	A
A	260	530	1154	0.226	259	0.3	4.421	A
B	318	423	1512	0.210	317	0.3	3.308	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	397	558	1019	0.390	397	0.7	6.355	A
D	483	509	1405	0.344	482	0.6	4.289	A
E	315	661	939	0.335	314	0.5	6.328	A
A	311	635	1089	0.286	311	0.4	5.085	A
B	379	507	1457	0.260	379	0.4	3.672	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	487	684	945	0.515	485	1.1	8.568	A
D	591	622	1329	0.445	590	0.9	5.352	A
E	385	808	854	0.451	384	0.9	8.398	A
A	381	776	1001	0.380	380	0.7	6.365	A
B	465	620	1383	0.336	464	0.6	4.307	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	487	685	944	0.515	487	1.2	8.645	A
D	591	624	1328	0.445	591	0.9	5.377	A
E	385	810	853	0.452	385	0.9	8.464	A
A	381	778	1000	0.381	381	0.7	6.396	A
B	465	622	1382	0.336	465	0.6	4.317	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	397	560	1018	0.390	399	0.7	6.421	A
D	483	511	1403	0.344	484	0.6	4.315	A
E	315	664	938	0.336	316	0.6	6.386	A
A	311	638	1087	0.286	312	0.4	5.118	A
B	379	510	1456	0.261	380	0.4	3.682	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	333	469	1072	0.311	334	0.5	5.373	A
D	404	428	1459	0.277	405	0.4	3.760	A
E	263	555	1000	0.264	264	0.4	5.386	A
A	260	533	1151	0.226	261	0.3	4.451	A
B	318	426	1510	0.210	318	0.3	3.324	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177

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Filename: PONTEFRACT ROAD ROUNDABOUT - 2036.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Pontefract Road Roundabout
Report generation date: 4/24/2026 10:27:15 AM

»2036 | Base | AM
»2036 | Base | PM

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2036 - Base										
Arm C	D1	1.2	9.20	0.53	A	D2	1.4	9.29	0.56	A
Arm D		0.6	4.81	0.37	A		0.9	5.54	0.45	A
Arm E		0.8	7.82	0.42	A		1.0	9.09	0.49	A
Arm A		0.8	6.14	0.41	A		0.8	6.80	0.41	A
Arm B		0.5	4.29	0.33	A		0.5	4.27	0.31	A

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

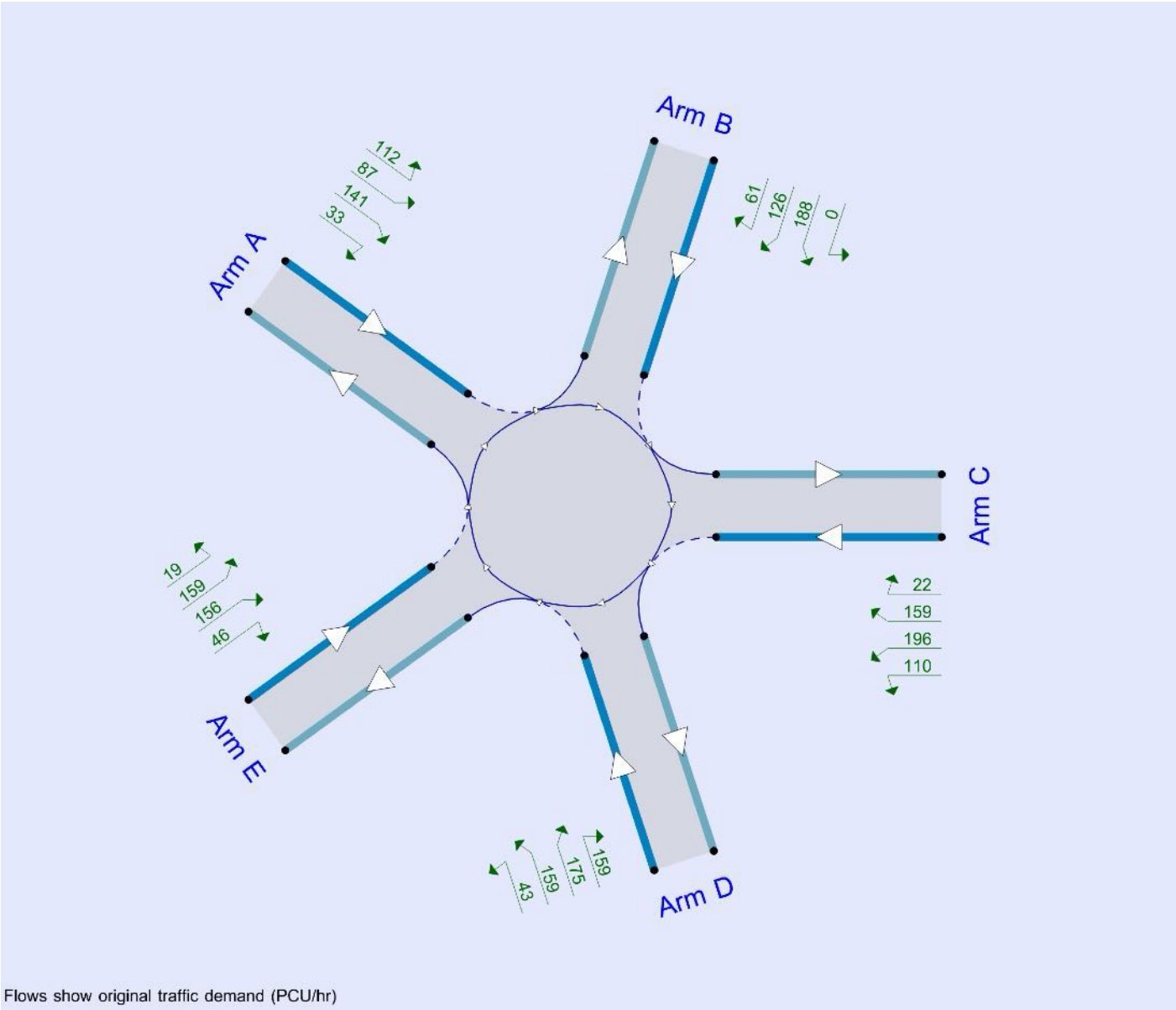
File summary

File Description

Title	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base	AM	ONE HOUR	00:00	01:30	15
D2	2036	Base	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2036 | 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		C, D, E, A, B	6.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.42	A

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRACT ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	448	100.000
D		✓	439	100.000
E		✓	331	100.000
A		✓	410	100.000
B		✓	413	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	123	123	187	15
	D	138	0	31	138	132
	E	96	50	0	50	135
	A	93	151	43	0	123
	B	3	182	130	98	0

Vehicle Mix

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.53	9.20	1.2	A
D	0.37	4.81	0.6	A
E	0.42	7.82	0.8	A
A	0.41	6.14	0.8	A
B	0.33	4.29	0.5	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	337	490	1059	0.318	335	0.5	5.455	A
D	331	446	1447	0.228	329	0.3	3.541	A
E	249	531	1014	0.246	248	0.4	5.159	A
A	309	424	1219	0.253	307	0.4	4.337	A
B	311	428	1509	0.206	310	0.3	3.298	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	403	587	1002	0.402	402	0.7	6.589	A
D	395	535	1387	0.284	394	0.4	3.985	A
E	298	636	954	0.312	297	0.5	6.026	A
A	369	508	1167	0.316	368	0.5	4.954	A
B	371	513	1454	0.255	371	0.4	3.657	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	493	719	924	0.534	491	1.2	9.099	A
D	483	654	1307	0.370	483	0.6	4.795	A
E	364	778	872	0.418	363	0.8	7.768	A
A	451	622	1097	0.412	450	0.8	6.116	A
B	455	627	1378	0.330	454	0.5	4.281	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	493	720	924	0.534	493	1.2	9.196	A
D	483	656	1306	0.370	483	0.6	4.812	A
E	364	779	871	0.418	364	0.8	7.818	A
A	451	623	1096	0.412	451	0.8	6.144	A
B	455	629	1377	0.330	455	0.5	4.291	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	403	589	1001	0.402	405	0.7	6.667	A
D	395	538	1386	0.285	395	0.4	4.002	A
E	298	638	952	0.313	299	0.5	6.070	A
A	369	510	1165	0.316	370	0.5	4.983	A
B	371	515	1452	0.256	372	0.4	3.666	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	337	493	1057	0.319	338	0.5	5.514	A
D	331	450	1445	0.229	331	0.3	3.559	A
E	249	534	1012	0.246	250	0.4	5.198	A
A	309	427	1217	0.254	309	0.4	4.364	A
B	311	431	1507	0.206	311	0.3	3.313	A

2036 | 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		C, D, E, A, B	7.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.01	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2036	Base	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	487	100.000
D		✓	536	100.000
E		✓	380	100.000
A		✓	373	100.000
B		✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		C	D	E	A	B
	C	0	110	196	159	22
	D	159	0	43	159	175
	E	156	46	0	19	159
	A	87	141	33	0	112
	B	0	188	126	61	0

Vehicle Mix

Heavy Vehicle %

From	To					
		C	D	E	A	B
	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.56	9.29	1.4	A
D	0.45	5.54	0.9	A
E	0.49	9.09	1.0	A
A	0.41	6.80	0.8	A
B	0.31	4.27	0.5	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	367	446	1085	0.338	364	0.6	5.478	A
D	404	447	1446	0.279	402	0.4	3.785	A
E	286	551	1002	0.285	284	0.4	5.502	A
A	281	537	1149	0.244	279	0.4	4.546	A
B	282	466	1484	0.190	281	0.3	3.288	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	438	534	1033	0.424	437	0.8	6.629	A
D	482	536	1387	0.347	481	0.6	4.370	A
E	342	660	940	0.364	341	0.6	6.605	A
A	335	643	1083	0.310	335	0.5	5.287	A
B	337	558	1424	0.237	337	0.3	3.643	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	536	654	963	0.557	534	1.4	9.188	A
D	590	655	1307	0.452	589	0.9	5.505	A
E	418	807	855	0.489	417	1.0	9.003	A
A	411	787	995	0.413	410	0.8	6.756	A
B	413	683	1342	0.308	412	0.5	4.257	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	536	655	962	0.557	536	1.4	9.295	A
D	590	657	1305	0.452	590	0.9	5.535	A
E	418	809	854	0.490	418	1.0	9.091	A
A	411	789	993	0.413	411	0.8	6.797	A
B	413	685	1341	0.308	413	0.5	4.267	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	438	536	1032	0.424	440	0.8	6.714	A
D	482	539	1385	0.348	483	0.6	4.399	A
E	342	663	938	0.364	343	0.6	6.679	A
A	335	647	1081	0.310	336	0.5	5.327	A
B	337	561	1422	0.237	338	0.3	3.656	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	367	449	1084	0.338	368	0.6	5.540	A
D	404	450	1444	0.279	404	0.4	3.809	A
E	286	554	1000	0.286	287	0.4	5.556	A
A	281	541	1147	0.245	281	0.4	4.581	A
B	282	469	1482	0.190	283	0.3	3.304	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: PONTEFRACT ROAD ROUNDABOUT - 2036 PLUS COMMITTED.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Pontefract Road Roundabout
Report generation date: 4/24/2026 10:29:05 AM

»2036 | Base PLUS COMMITTED | AM
»2036 | Base PLUS COMMITTED | PM

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2036 - Base PLUS COMMITTED										
Arm C	D1	1.5	10.01	0.57	B	D2	1.4	9.29	0.56	A
Arm D		0.7	5.09	0.39	A		1.0	5.79	0.48	A
Arm E		0.8	8.05	0.43	A		1.1	9.57	0.50	A
Arm A		0.8	6.32	0.42	A		0.8	7.12	0.43	A
Arm B		0.5	4.29	0.33	A		0.5	4.27	0.31	A

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

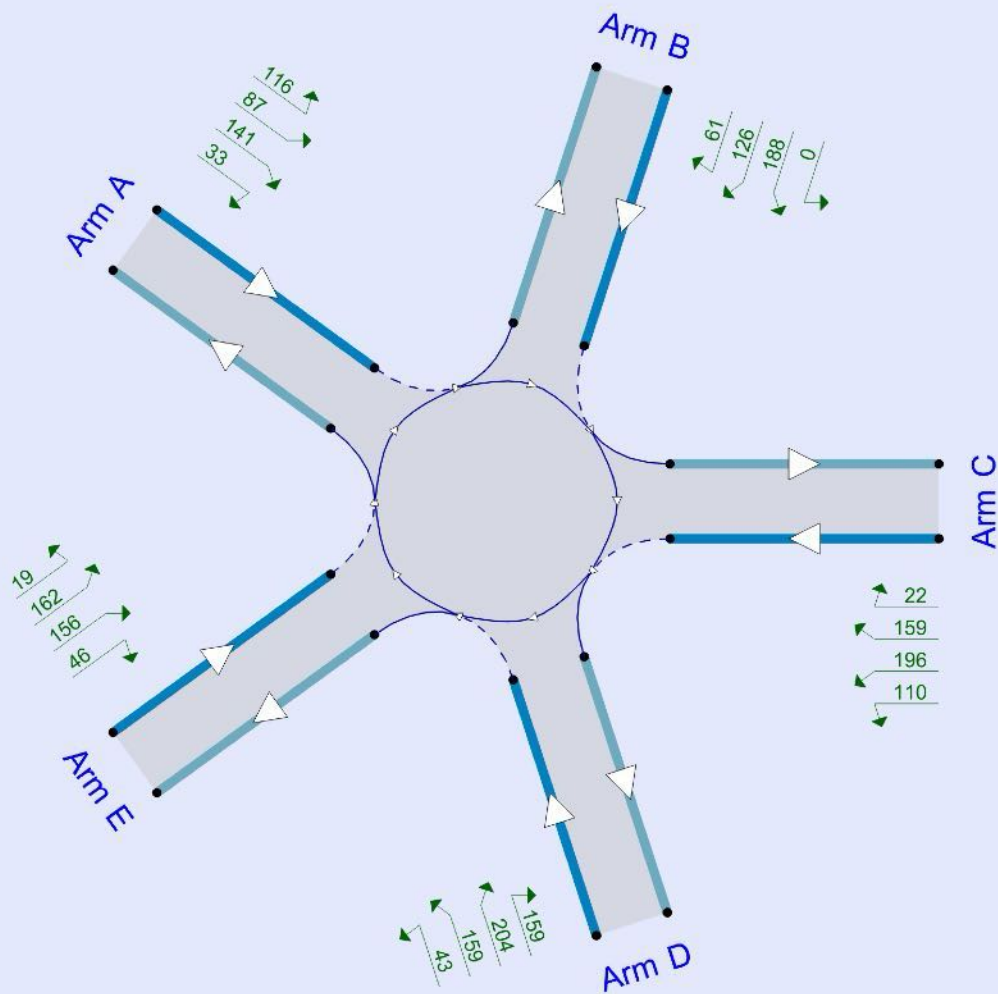
File summary

File Description

Title	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15
D2	2036	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2036 | Base PLUS COMMITTED | 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		C, D, E, A, B	6.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.77	A

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRACT ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	480	100.000
D		✓	459	100.000
E		✓	333	100.000
A		✓	413	100.000
B		✓	413	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	123	155	187	15
	D	138	0	31	138	152
	E	96	50	0	50	137
	A	93	151	43	0	126
	B	3	182	130	98	0

Vehicle Mix

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.57	10.01	1.5	B
D	0.39	5.09	0.7	A
E	0.43	8.05	0.8	A
A	0.42	6.32	0.8	A
B	0.33	4.29	0.5	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	361	490	1059	0.341	359	0.6	5.639	A
D	346	470	1431	0.242	344	0.3	3.640	A
E	251	546	1005	0.249	249	0.4	5.228	A
A	311	440	1209	0.257	309	0.4	4.397	A
B	311	428	1509	0.206	310	0.3	3.298	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	432	587	1002	0.431	430	0.8	6.916	A
D	413	564	1368	0.302	412	0.5	4.140	A
E	299	653	943	0.317	299	0.5	6.139	A
A	371	528	1155	0.322	371	0.5	5.048	A
B	371	513	1454	0.255	371	0.4	3.657	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	528	719	924	0.572	526	1.4	9.879	A
D	505	689	1284	0.394	504	0.7	5.073	A
E	367	799	859	0.427	365	0.8	7.997	A
A	455	646	1082	0.420	454	0.8	6.293	A
B	455	627	1379	0.330	454	0.5	4.281	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	528	720	924	0.572	528	1.5	10.014	B
D	505	691	1283	0.394	505	0.7	5.094	A
E	367	801	858	0.427	367	0.8	8.054	A
A	455	647	1081	0.421	455	0.8	6.323	A
B	455	629	1377	0.330	455	0.5	4.291	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	432	589	1001	0.431	434	0.8	7.017	A
D	413	567	1366	0.302	414	0.5	4.163	A
E	299	656	942	0.318	301	0.5	6.190	A
A	371	530	1153	0.322	372	0.5	5.078	A
B	371	515	1452	0.256	372	0.4	3.666	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	361	493	1057	0.342	362	0.6	5.705	A
D	346	474	1428	0.242	346	0.4	3.662	A
E	251	549	1003	0.250	251	0.4	5.269	A
A	311	444	1207	0.258	311	0.4	4.426	A
B	311	431	1507	0.206	311	0.3	3.313	A

2036 | Base PLUS COMMITTED | 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		C, D, E, A, B	7.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.20	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2036	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	487	100.000
D		✓	565	100.000
E		✓	383	100.000
A		✓	377	100.000
B		✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	110	196	159	22
	D	159	0	43	159	204
	E	156	46	0	19	162
	A	87	141	33	0	116
	B	0	188	126	61	0

Vehicle Mix

Heavy Vehicle %

	To					
		C	D	E	A	B
	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.56	9.29	1.4	A
D	0.48	5.79	1.0	A
E	0.50	9.57	1.1	A
A	0.43	7.12	0.8	A
B	0.31	4.27	0.5	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	367	446	1085	0.338	364	0.6	5.478	A
D	425	447	1446	0.294	424	0.5	3.865	A
E	288	573	990	0.291	287	0.4	5.617	A
A	284	561	1134	0.250	282	0.4	4.641	A
B	282	466	1484	0.190	281	0.3	3.288	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	438	534	1033	0.424	437	0.8	6.629	A
D	508	536	1387	0.366	507	0.6	4.498	A
E	344	686	925	0.372	344	0.6	6.803	A
A	339	672	1066	0.318	338	0.5	5.440	A
B	337	558	1424	0.237	337	0.3	3.643	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	536	654	963	0.557	534	1.4	9.187	A
D	622	655	1307	0.476	621	1.0	5.760	A
E	422	839	837	0.504	420	1.1	9.460	A
A	415	822	973	0.427	414	0.8	7.065	A
B	413	683	1342	0.308	412	0.5	4.256	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	536	655	962	0.557	536	1.4	9.295	A
D	622	657	1305	0.477	622	1.0	5.794	A
E	422	841	835	0.505	422	1.1	9.568	A
A	415	825	971	0.427	415	0.8	7.116	A
B	413	685	1341	0.308	413	0.5	4.267	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	438	536	1032	0.424	440	0.8	6.715	A
D	508	539	1385	0.367	509	0.6	4.532	A
E	344	689	923	0.373	346	0.7	6.886	A
A	339	676	1063	0.319	340	0.5	5.487	A
B	337	561	1422	0.237	338	0.3	3.657	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	367	449	1084	0.338	368	0.6	5.537	A
D	425	450	1444	0.295	426	0.5	3.894	A
E	288	576	988	0.292	289	0.5	5.677	A
A	284	565	1132	0.251	284	0.4	4.677	A
B	282	469	1482	0.190	283	0.3	3.304	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: PONTEFRACT ROAD ROUNDABOUT - 2036 PLUS COMMITTED PLUS DEVELOPMENT.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Pontefract Road Roundabout
Report generation date: 4/24/2026 10:30:36 AM

»2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM
»2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2036 - Base PLUS COMMITTED PLUS DEVELOPMENT									
Arm C	D1	1.5	10.51	0.58	B	D2	1.4	9.42	0.56	A
Arm D		0.7	5.18	0.40	A		1.1	6.02	0.50	A
Arm E		0.8	8.19	0.43	A		1.2	9.97	0.52	A
Arm A		0.8	6.40	0.42	A		0.9	7.38	0.44	A
Arm B		0.6	4.44	0.35	A		0.5	4.31	0.32	A

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.

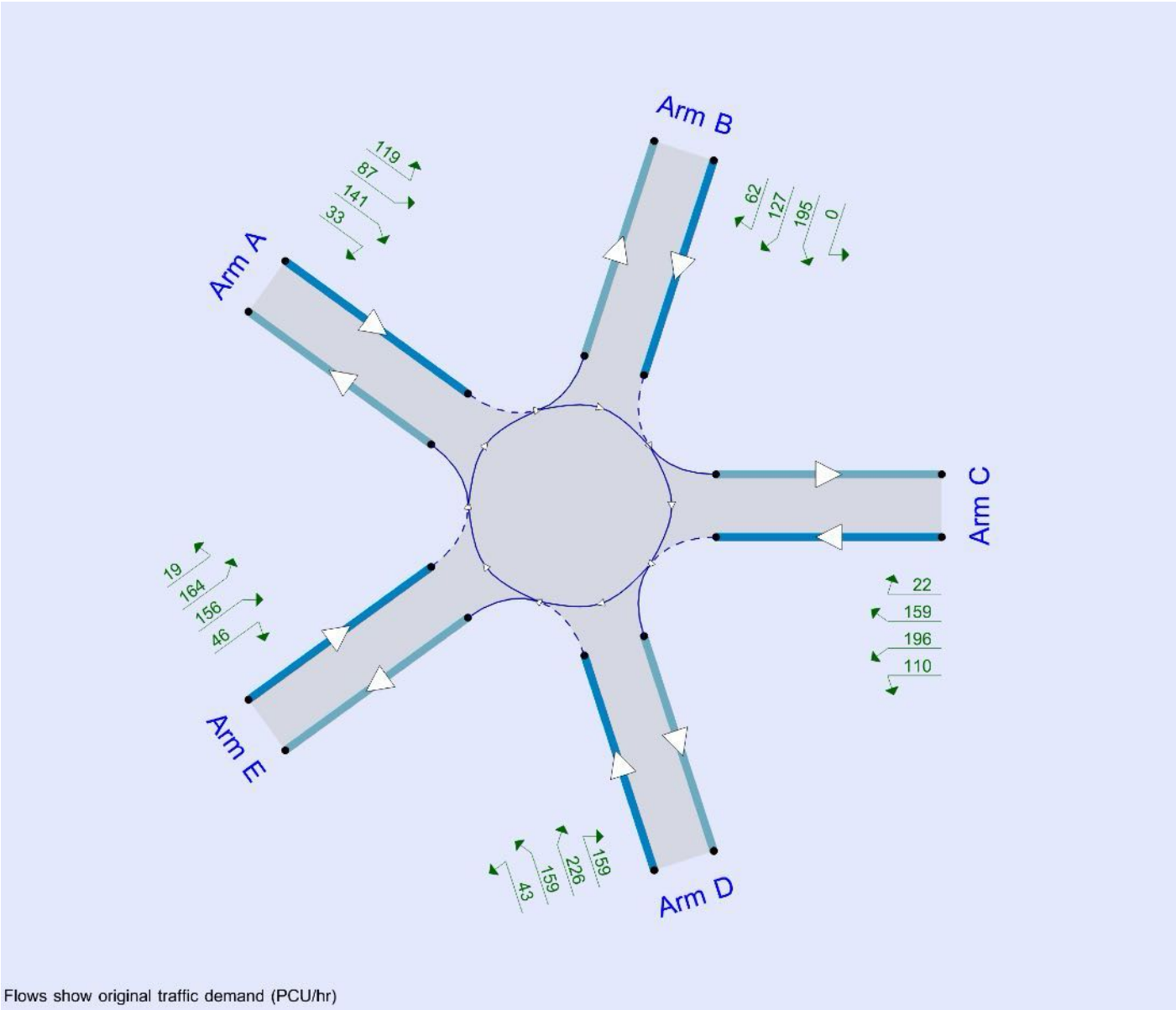
File summary

File Description

Title	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15
D2	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2036 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, E, A, B	6.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.93	A

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSLEY ROAD		
D	PONTEFRACT ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	480	100.000
D		✓	467	100.000
E		✓	334	100.000
A		✓	414	100.000
B		✓	442	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	123	155	187	15
	D	138	0	31	138	160
	E	96	50	0	50	138
	A	93	151	43	0	127
	B	3	205	133	101	0

Vehicle Mix

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.58	10.51	1.5	B
D	0.40	5.18	0.7	A
E	0.43	8.19	0.8	A
A	0.42	6.40	0.8	A
B	0.35	4.44	0.6	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	361	512	1046	0.345	359	0.6	5.744	A
D	352	475	1428	0.246	350	0.4	3.670	A
E	251	554	1001	0.251	250	0.4	5.266	A
A	312	447	1204	0.259	310	0.4	4.421	A
B	333	428	1509	0.220	332	0.3	3.359	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	432	613	987	0.437	430	0.8	7.103	A
D	420	569	1365	0.308	419	0.5	4.187	A
E	300	663	938	0.320	300	0.5	6.202	A
A	372	536	1150	0.324	372	0.5	5.086	A
B	397	513	1454	0.273	397	0.4	3.747	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	528	751	906	0.584	526	1.5	10.354	B
D	514	696	1280	0.402	513	0.7	5.160	A
E	368	811	852	0.431	367	0.8	8.128	A
A	456	656	1076	0.424	455	0.8	6.364	A
B	487	627	1379	0.353	486	0.6	4.432	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	528	752	905	0.584	528	1.5	10.513	B
D	514	698	1278	0.402	514	0.7	5.183	A
E	368	814	851	0.432	368	0.8	8.188	A
A	456	657	1075	0.424	456	0.8	6.397	A
B	487	629	1377	0.353	487	0.6	4.444	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	432	615	985	0.438	434	0.9	7.216	A
D	420	572	1362	0.308	421	0.5	4.211	A
E	300	667	936	0.321	301	0.5	6.256	A
A	372	538	1148	0.324	373	0.5	5.119	A
B	397	515	1452	0.274	398	0.4	3.758	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	361	515	1045	0.346	362	0.6	5.817	A
D	352	478	1425	0.247	352	0.4	3.693	A
E	251	557	999	0.252	252	0.4	5.308	A
A	312	450	1202	0.259	312	0.4	4.452	A
B	333	431	1507	0.221	333	0.3	3.372	A

2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2036 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, E, A, B	7.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.39	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	487	100.000
D		✓	587	100.000
E		✓	385	100.000
A		✓	380	100.000
B		✓	384	100.000

Origin-Destination Data

Demand (PCU/hr)

		To					
From		C	D	E	A	B	
	C	0	110	196	159	22	
	D	159	0	43	159	226	
	E	156	46	0	19	164	
	A	87	141	33	0	119	
	B	0	195	127	62	0	

Vehicle Mix

Heavy Vehicle %

From	To					
		C	D	E	A	B
	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.56	9.42	1.4	A
D	0.50	6.02	1.1	A
E	0.52	9.97	1.2	A
A	0.44	7.38	0.9	A
B	0.32	4.31	0.5	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	367	453	1081	0.339	364	0.6	5.508	A
D	442	449	1445	0.306	440	0.5	3.932	A
E	290	590	980	0.296	288	0.5	5.708	A
A	286	579	1123	0.255	285	0.4	4.713	A
B	289	466	1484	0.195	288	0.3	3.306	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	438	542	1028	0.426	437	0.8	6.682	A
D	528	538	1386	0.381	527	0.7	4.608	A
E	346	706	913	0.379	345	0.7	6.967	A
A	342	694	1052	0.325	341	0.5	5.562	A
B	345	558	1424	0.242	345	0.4	3.670	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	536	664	957	0.560	534	1.4	9.312	A
D	646	657	1305	0.495	645	1.1	5.979	A
E	424	864	822	0.516	422	1.1	9.847	A
A	418	848	957	0.437	417	0.8	7.317	A
B	423	683	1342	0.315	422	0.5	4.302	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	536	665	956	0.561	536	1.4	9.424	A
D	646	659	1304	0.496	646	1.1	6.020	A
E	424	866	821	0.516	424	1.2	9.972	A
A	418	851	955	0.438	418	0.9	7.376	A
B	423	685	1341	0.315	423	0.5	4.314	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	438	544	1027	0.426	440	0.8	6.771	A
D	528	541	1384	0.381	529	0.7	4.645	A
E	346	710	911	0.380	348	0.7	7.058	A
A	342	698	1050	0.325	343	0.5	5.614	A
B	345	561	1422	0.243	346	0.4	3.682	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	367	455	1080	0.340	368	0.6	5.571	A
D	442	452	1443	0.306	443	0.5	3.961	A
E	290	594	978	0.296	291	0.5	5.773	A
A	286	583	1120	0.255	287	0.4	4.753	A
B	289	469	1482	0.195	289	0.3	3.323	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: WEETSHAW LANE ROUNDABOUT - 2026 BASE.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Weetshaw Lane Roundabout
Report generation date: 4/23/2026 10:55:32 AM

»2026 | Base | AM
»2026 | Base | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2026 - Base									
1 - Proposed Site Access	D1	0.1	3.27	0.06	A	D2	0.0	3.15	0.02	A
2 - Cudworth Parkway SW		0.7	4.55	0.40	A		0.8	4.74	0.41	A
3 - Weetshaw Lane		0.2	4.03	0.17	A		0.3	4.28	0.23	A
4 - Cudworth Parkway NE		0.9	4.88	0.46	A		1.0	5.18	0.48	A

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

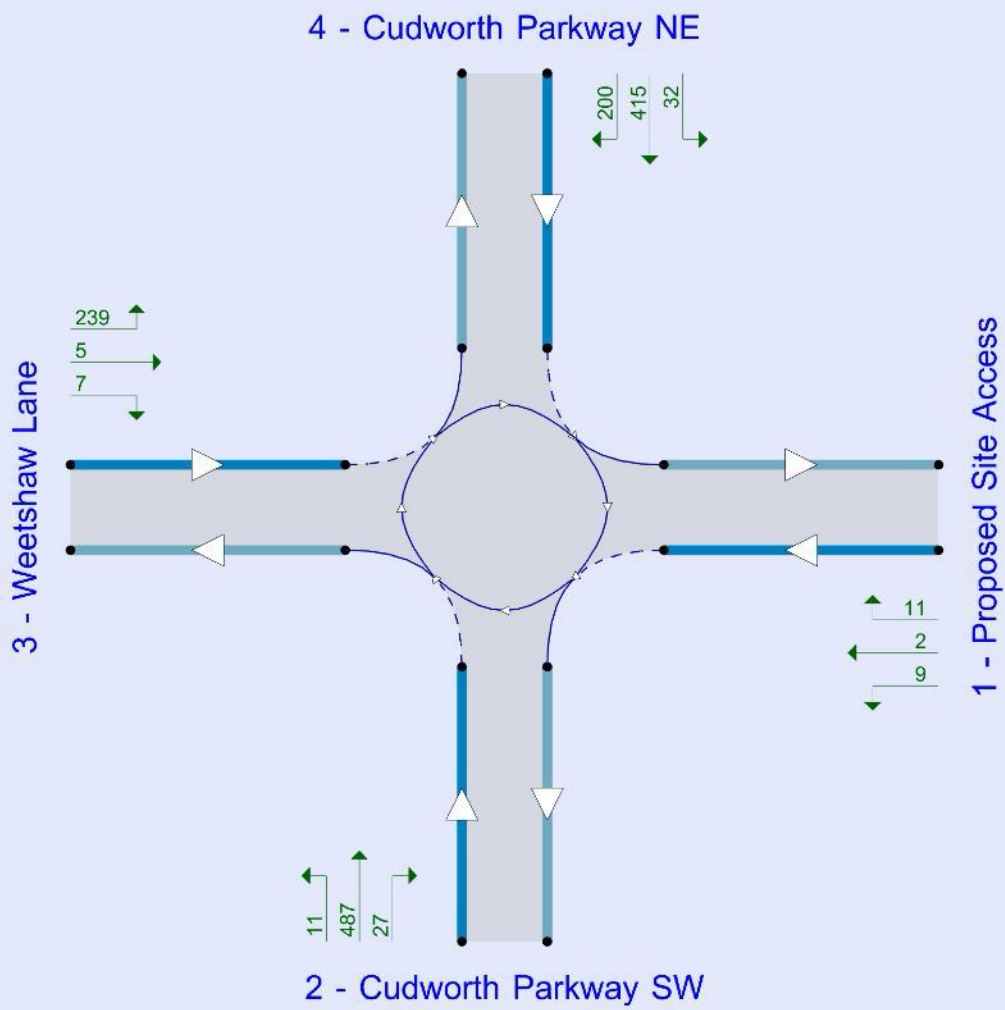
File summary

File Description

Title	Cudworth Parkway
Location	Barnsley
Site number	2466
Date	9/10/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	2466
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base	AM	ONE HOUR	00:00	01:30	15
D2	2026	Base	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 | 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	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	4.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.57	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Proposed Site Access		
2	Cudworth Parkway SW		
3	Weetshaw Lane		
4	Cudworth Parkway NE		

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 - Proposed Site Access	3.00	6.02	16.6	40.0	125.0	18.0		
2 - Cudworth Parkway SW	4.68	5.06	10.0	28.0	25.0	26.0		
3 - Weetshaw Lane	4.23	5.03	15.5	38.0	25.0	19.0		
4 - Cudworth Parkway NE	3.83	5.14	15.9	20.0	25.0	24.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Proposed Site Access	0.444	1585
2 - Cudworth Parkway SW	0.643	1564
3 - Weetshaw Lane	0.656	1580
4 - Cudworth Parkway NE	0.628	1504

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	66	100.000
2 - Cudworth Parkway SW		✓	522	100.000
3 - Weetshaw Lane		✓	185	100.000
4 - Cudworth Parkway NE		✓	616	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	0	28	5	33
	2 - Cudworth Parkway SW	10	0	8	504
	3 - Weetshaw Lane	2	10	0	173
	4 - Cudworth Parkway NE	12	473	131	0

Vehicle Mix

Heavy Vehicle %

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.06	3.27	0.1	A
2 - Cudworth Parkway SW	0.40	4.55	0.7	A
3 - Weetshaw Lane	0.17	4.03	0.2	A
4 - Cudworth Parkway NE	0.46	4.88	0.9	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	50	460	1380	0.036	50	0.0	2.975	A
2 - Cudworth Parkway SW	393	127	1483	0.265	391	0.4	3.624	A
3 - Weetshaw Lane	139	410	1311	0.106	139	0.1	3.375	A
4 - Cudworth Parkway NE	464	16	1494	0.310	462	0.5	3.831	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	59	551	1340	0.044	59	0.1	3.091	A
2 - Cudworth Parkway SW	469	152	1467	0.320	469	0.5	3.967	A
3 - Weetshaw Lane	166	491	1258	0.132	166	0.2	3.626	A
4 - Cudworth Parkway NE	554	20	1492	0.371	553	0.6	4.217	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	73	675	1285	0.057	73	0.1	3.265	A
2 - Cudworth Parkway SW	575	186	1445	0.398	574	0.7	4.544	A
3 - Weetshaw Lane	204	601	1186	0.172	203	0.2	4.031	A
4 - Cudworth Parkway NE	678	24	1489	0.456	677	0.9	4.873	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	73	676	1285	0.057	73	0.1	3.266	A
2 - Cudworth Parkway SW	575	186	1444	0.398	575	0.7	4.552	A
3 - Weetshaw Lane	204	602	1185	0.172	204	0.2	4.034	A
4 - Cudworth Parkway NE	678	24	1489	0.456	678	0.9	4.885	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	59	553	1339	0.044	59	0.1	3.093	A
2 - Cudworth Parkway SW	469	152	1466	0.320	470	0.5	3.978	A
3 - Weetshaw Lane	166	493	1257	0.132	167	0.2	3.634	A
4 - Cudworth Parkway NE	554	20	1492	0.371	555	0.7	4.233	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	50	463	1379	0.036	50	0.0	2.978	A
2 - Cudworth Parkway SW	393	127	1482	0.265	393	0.4	3.638	A
3 - Weetshaw Lane	139	412	1310	0.106	139	0.1	3.383	A
4 - Cudworth Parkway NE	464	17	1494	0.311	464	0.5	3.851	A

2026 | 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	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	4.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.83	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	Base	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	22	100.000
2 - Cudworth Parkway SW		✓	525	100.000
3 - Weetshaw Lane		✓	251	100.000
4 - Cudworth Parkway NE		✓	647	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	0	9	2	11
	2 - Cudworth Parkway SW	27	0	11	487
	3 - Weetshaw Lane	5	7	0	239
	4 - Cudworth Parkway NE	32	415	200	0

Vehicle Mix

Heavy Vehicle %

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.02	3.15	0.0	A
2 - Cudworth Parkway SW	0.41	4.74	0.8	A
3 - Weetshaw Lane	0.23	4.28	0.3	A
4 - Cudworth Parkway NE	0.48	5.18	1.0	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	17	466	1378	0.012	17	0.0	2.908	A
2 - Cudworth Parkway SW	395	160	1461	0.270	394	0.4	3.704	A
3 - Weetshaw Lane	189	394	1322	0.143	188	0.2	3.491	A
4 - Cudworth Parkway NE	487	29	1486	0.328	485	0.5	3.950	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	20	559	1337	0.015	20	0.0	3.006	A
2 - Cudworth Parkway SW	472	191	1441	0.327	471	0.5	4.082	A
3 - Weetshaw Lane	226	471	1271	0.178	225	0.2	3.787	A
4 - Cudworth Parkway NE	582	35	1482	0.392	581	0.7	4.395	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	24	684	1281	0.019	24	0.0	3.149	A
2 - Cudworth Parkway SW	578	234	1414	0.409	577	0.8	4.729	A
3 - Weetshaw Lane	276	577	1202	0.230	276	0.3	4.275	A
4 - Cudworth Parkway NE	712	43	1477	0.482	711	1.0	5.161	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	24	685	1281	0.019	24	0.0	3.150	A
2 - Cudworth Parkway SW	578	235	1413	0.409	578	0.8	4.740	A
3 - Weetshaw Lane	276	578	1201	0.230	276	0.3	4.282	A
4 - Cudworth Parkway NE	712	43	1477	0.482	712	1.0	5.178	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	20	560	1336	0.015	20	0.0	3.008	A
2 - Cudworth Parkway SW	472	192	1441	0.328	473	0.5	4.096	A
3 - Weetshaw Lane	226	473	1270	0.178	226	0.2	3.796	A
4 - Cudworth Parkway NE	582	35	1482	0.392	583	0.7	4.411	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	17	469	1377	0.012	17	0.0	2.911	A
2 - Cudworth Parkway SW	395	161	1461	0.271	396	0.4	3.718	A
3 - Weetshaw Lane	189	396	1321	0.143	189	0.2	3.502	A
4 - Cudworth Parkway NE	487	29	1486	0.328	488	0.5	3.973	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: WEETSHAW LANE ROUNDABOUT - 2026 PLUS COMMITTED.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Weetshaw Lane Roundabout
Report generation date: 4/23/2026 11:27:41 AM

»2026 | Base PLUS COMMITTED | AM
»2026 | Base PLUS COMMITTED | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2026 - Base PLUS COMMITTED									
1 - Proposed Site Access	D1	0.1	3.27	0.06	A	D2	0.0	3.15	0.02	A
2 - Cudworth Parkway SW		0.7	4.55	0.40	A		0.8	4.74	0.41	A
3 - Weetshaw Lane		0.2	4.03	0.17	A		0.3	4.28	0.23	A
4 - Cudworth Parkway NE		0.9	4.88	0.46	A		1.0	5.18	0.48	A

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

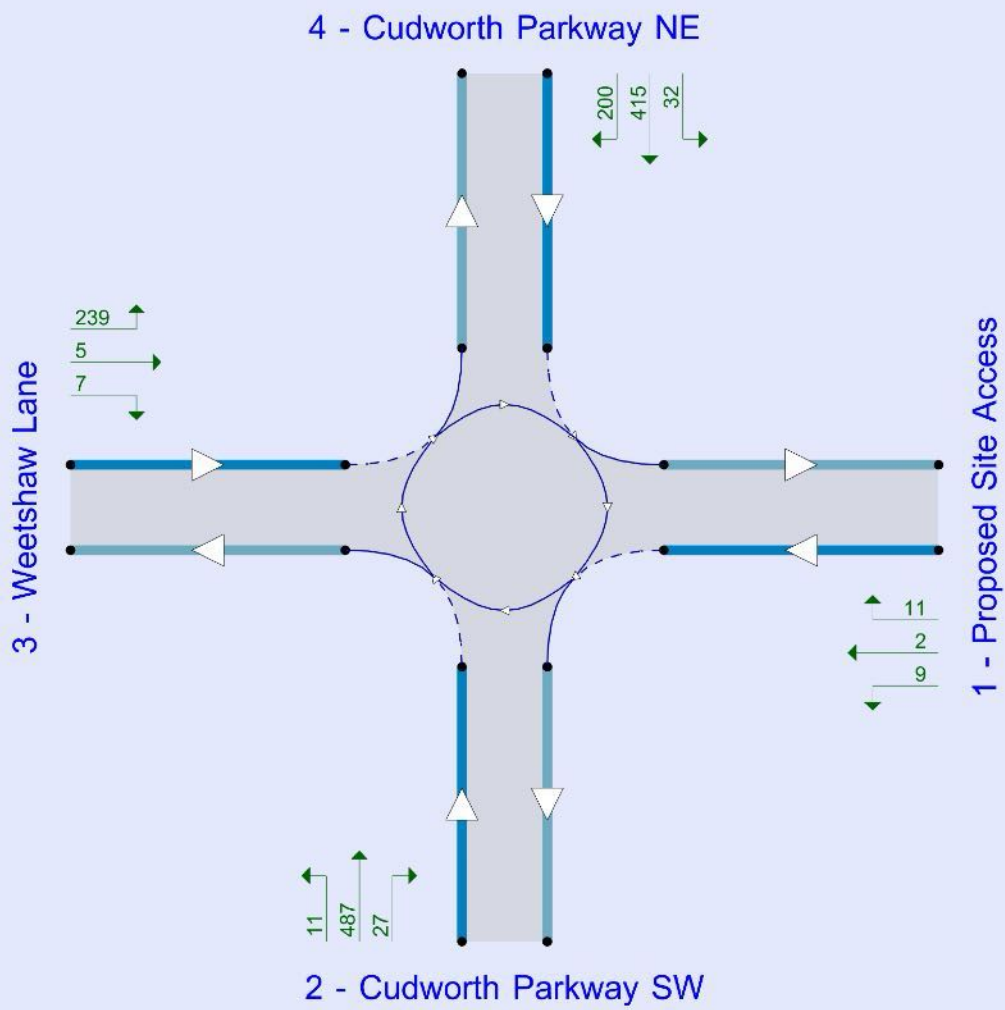
File summary

File Description

Title	Cudworth Parkway
Location	Barnsley
Site number	2466
Date	9/10/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	2466
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15
D2	2026	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 | Base PLUS COMMITTED | 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	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	4.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.57	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Proposed Site Access		
2	Cudworth Parkway SW		
3	Weetshaw Lane		
4	Cudworth Parkway NE		

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 - Proposed Site Access	3.00	6.02	16.6	40.0	125.0	18.0		
2 - Cudworth Parkway SW	4.68	5.06	10.0	28.0	25.0	26.0		
3 - Weetshaw Lane	4.23	5.03	15.5	38.0	25.0	19.0		
4 - Cudworth Parkway NE	3.83	5.14	15.9	20.0	25.0	24.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Proposed Site Access	0.444	1585
2 - Cudworth Parkway SW	0.643	1564
3 - Weetshaw Lane	0.656	1580
4 - Cudworth Parkway NE	0.628	1504

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	66	100.000
2 - Cudworth Parkway SW		✓	522	100.000
3 - Weetshaw Lane		✓	185	100.000
4 - Cudworth Parkway NE		✓	616	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	0	28	5	33
	2 - Cudworth Parkway SW	10	0	8	504
	3 - Weetshaw Lane	2	10	0	173
	4 - Cudworth Parkway NE	12	473	131	0

Vehicle Mix

Heavy Vehicle %

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.06	3.27	0.1	A
2 - Cudworth Parkway SW	0.40	4.55	0.7	A
3 - Weetshaw Lane	0.17	4.03	0.2	A
4 - Cudworth Parkway NE	0.46	4.88	0.9	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
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2 - Cudworth Parkway SW	393	127	1483	0.265	391	0.4	3.624	A
3 - Weetshaw Lane	139	410	1311	0.106	139	0.1	3.375	A
4 - Cudworth Parkway NE	464	16	1494	0.310	462	0.5	3.831	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
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2 - Cudworth Parkway SW	469	152	1467	0.320	469	0.5	3.967	A
3 - Weetshaw Lane	166	491	1258	0.132	166	0.2	3.626	A
4 - Cudworth Parkway NE	554	20	1492	0.371	553	0.6	4.217	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
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3 - Weetshaw Lane	204	601	1186	0.172	203	0.2	4.031	A
4 - Cudworth Parkway NE	678	24	1489	0.456	677	0.9	4.873	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	73	676	1285	0.057	73	0.1	3.266	A
2 - Cudworth Parkway SW	575	186	1444	0.398	575	0.7	4.552	A
3 - Weetshaw Lane	204	602	1185	0.172	204	0.2	4.034	A
4 - Cudworth Parkway NE	678	24	1489	0.456	678	0.9	4.885	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	59	553	1339	0.044	59	0.1	3.093	A
2 - Cudworth Parkway SW	469	152	1466	0.320	470	0.5	3.978	A
3 - Weetshaw Lane	166	493	1257	0.132	167	0.2	3.634	A
4 - Cudworth Parkway NE	554	20	1492	0.371	555	0.7	4.233	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	50	463	1379	0.036	50	0.0	2.978	A
2 - Cudworth Parkway SW	393	127	1482	0.265	393	0.4	3.638	A
3 - Weetshaw Lane	139	412	1310	0.106	139	0.1	3.383	A
4 - Cudworth Parkway NE	464	17	1494	0.311	464	0.5	3.851	A

2026 | Base PLUS COMMITTED | 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	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	4.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.83	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	22	100.000
2 - Cudworth Parkway SW		✓	525	100.000
3 - Weetshaw Lane		✓	251	100.000
4 - Cudworth Parkway NE		✓	647	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	0	9	2	11
	2 - Cudworth Parkway SW	27	0	11	487
	3 - Weetshaw Lane	5	7	0	239
	4 - Cudworth Parkway NE	32	415	200	0

Vehicle Mix

Heavy Vehicle %

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.02	3.15	0.0	A
2 - Cudworth Parkway SW	0.41	4.74	0.8	A
3 - Weetshaw Lane	0.23	4.28	0.3	A
4 - Cudworth Parkway NE	0.48	5.18	1.0	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
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00:15 - 00:30

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4 - Cudworth Parkway NE	582	35	1482	0.392	581	0.7	4.395	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	24	684	1281	0.019	24	0.0	3.149	A
2 - Cudworth Parkway SW	578	234	1414	0.409	577	0.8	4.729	A
3 - Weetshaw Lane	276	577	1202	0.230	276	0.3	4.275	A
4 - Cudworth Parkway NE	712	43	1477	0.482	711	1.0	5.161	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	24	685	1281	0.019	24	0.0	3.150	A
2 - Cudworth Parkway SW	578	235	1413	0.409	578	0.8	4.740	A
3 - Weetshaw Lane	276	578	1201	0.230	276	0.3	4.282	A
4 - Cudworth Parkway NE	712	43	1477	0.482	712	1.0	5.178	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	20	560	1336	0.015	20	0.0	3.008	A
2 - Cudworth Parkway SW	472	192	1441	0.328	473	0.5	4.096	A
3 - Weetshaw Lane	226	473	1270	0.178	226	0.2	3.796	A
4 - Cudworth Parkway NE	582	35	1482	0.392	583	0.7	4.411	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	17	469	1377	0.012	17	0.0	2.911	A
2 - Cudworth Parkway SW	395	161	1461	0.271	396	0.4	3.718	A
3 - Weetshaw Lane	189	396	1321	0.143	189	0.2	3.502	A
4 - Cudworth Parkway NE	487	29	1486	0.328	488	0.5	3.973	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: WEETSHAW LANE ROUNDABOUT - 2026 PLUS COMMITTED PLUS DEVELOPMENT.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Weetshaw Lane Roundabout
Report generation date: 4/23/2026 11:30:27 AM

»2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM
»2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2026 - Base PLUS COMMITTED PLUS DEVELOPMENT									
1 - Proposed Site Access	D1	0.0	0.00	0.00	A	D2	0.0	0.00	0.00	A
2 - Cudworth Parkway SW		0.7	4.52	0.40	A		0.8	4.76	0.41	A
3 - Weetshaw Lane		0.2	3.98	0.17	A		0.3	4.31	0.24	A
4 - Cudworth Parkway NE		1.0	5.16	0.49	A		1.1	5.25	0.50	A

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.

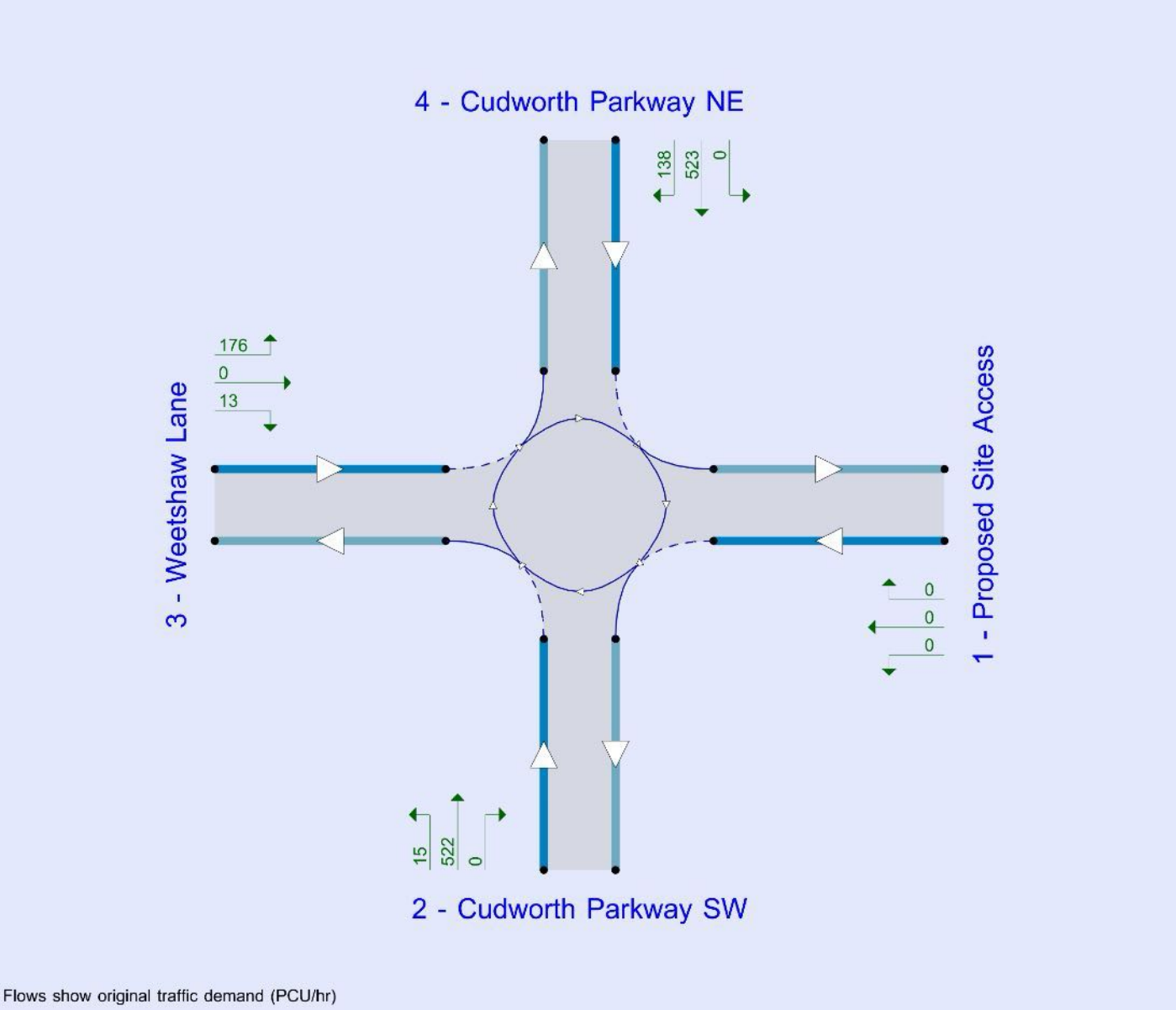
File summary

File Description

Title	Cudworth Parkway
Location	Barnsley
Site number	2466
Date	9/10/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	2466
Enumerator	LEIGHOGDEN5BEE\leighogden
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15
D2	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2026 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	4.75	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.75	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Proposed Site Access		
2	Cudworth Parkway SW		
3	Weetshaw Lane		
4	Cudworth Parkway NE		

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 - Proposed Site Access	3.00	6.02	16.6	40.0	125.0	18.0		
2 - Cudworth Parkway SW	4.68	5.06	10.0	28.0	25.0	26.0		
3 - Weetshaw Lane	4.23	5.03	15.5	38.0	25.0	19.0		
4 - Cudworth Parkway NE	3.83	5.14	15.9	20.0	25.0	24.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Proposed Site Access	0.444	1585
2 - Cudworth Parkway SW	0.643	1564
3 - Weetshaw Lane	0.656	1580
4 - Cudworth Parkway NE	0.628	1504

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	0	100.000
2 - Cudworth Parkway SW		✓	537	100.000
3 - Weetshaw Lane		✓	189	100.000
4 - Cudworth Parkway NE		✓	661	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	0	0	0	0
	2 - Cudworth Parkway SW	0	0	15	522
	3 - Weetshaw Lane	0	13	0	176
	4 - Cudworth Parkway NE	0	523	138	0

Vehicle Mix

Heavy Vehicle %

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.00	0.00	0.0	A
2 - Cudworth Parkway SW	0.40	4.52	0.7	A
3 - Weetshaw Lane	0.17	3.98	0.2	A
4 - Cudworth Parkway NE	0.49	5.16	1.0	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	505	1360	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	404	103	1498	0.270	403	0.4	3.612	A
3 - Weetshaw Lane	142	391	1323	0.108	142	0.1	3.349	A
4 - Cudworth Parkway NE	498	10	1498	0.332	495	0.5	3.941	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	605	1316	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	483	124	1484	0.325	482	0.5	3.950	A
3 - Weetshaw Lane	170	469	1273	0.134	170	0.2	3.590	A
4 - Cudworth Parkway NE	594	12	1497	0.397	594	0.7	4.378	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	741	1256	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	591	152	1467	0.403	590	0.7	4.516	A
3 - Weetshaw Lane	208	574	1204	0.173	208	0.2	3.975	A
4 - Cudworth Parkway NE	728	14	1495	0.487	727	1.0	5.144	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	742	1255	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	591	152	1466	0.403	591	0.7	4.524	A
3 - Weetshaw Lane	208	575	1203	0.173	208	0.2	3.979	A
4 - Cudworth Parkway NE	728	14	1495	0.487	728	1.0	5.160	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	607	1315	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	483	124	1484	0.325	484	0.5	3.960	A
3 - Weetshaw Lane	170	470	1272	0.134	170	0.2	3.597	A
4 - Cudworth Parkway NE	594	12	1497	0.397	595	0.7	4.401	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	508	1359	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	404	104	1497	0.270	405	0.4	3.625	A
3 - Weetshaw Lane	142	393	1322	0.108	142	0.1	3.356	A
4 - Cudworth Parkway NE	498	10	1498	0.332	498	0.6	3.966	A

2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2026 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	4.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.90	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	0	100.000
2 - Cudworth Parkway SW		✓	534	100.000
3 - Weetshaw Lane		✓	259	100.000
4 - Cudworth Parkway NE		✓	672	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	0	0	0	0
	2 - Cudworth Parkway SW	0	0	13	521
	3 - Weetshaw Lane	0	14	0	245
	4 - Cudworth Parkway NE	0	469	203	0

Vehicle Mix

Heavy Vehicle %

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.00	0.00	0.0	A
2 - Cudworth Parkway SW	0.41	4.76	0.8	A
3 - Weetshaw Lane	0.24	4.31	0.3	A
4 - Cudworth Parkway NE	0.50	5.25	1.1	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	514	1356	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	402	152	1466	0.274	400	0.4	3.711	A
3 - Weetshaw Lane	195	391	1324	0.147	194	0.2	3.504	A
4 - Cudworth Parkway NE	506	10	1497	0.338	504	0.6	3.976	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	616	1311	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	480	182	1447	0.332	480	0.5	4.092	A
3 - Weetshaw Lane	233	468	1273	0.183	233	0.2	3.805	A
4 - Cudworth Parkway NE	604	13	1496	0.404	603	0.7	4.432	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	754	1250	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	588	223	1421	0.414	587	0.8	4.745	A
3 - Weetshaw Lane	285	573	1204	0.237	285	0.3	4.304	A
4 - Cudworth Parkway NE	740	15	1494	0.495	739	1.1	5.232	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	755	1249	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	588	224	1420	0.414	588	0.8	4.756	A
3 - Weetshaw Lane	285	574	1204	0.237	285	0.3	4.310	A
4 - Cudworth Parkway NE	740	15	1494	0.495	740	1.1	5.248	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	618	1310	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	480	183	1447	0.332	481	0.6	4.106	A
3 - Weetshaw Lane	233	469	1272	0.183	233	0.2	3.814	A
4 - Cudworth Parkway NE	604	13	1496	0.404	605	0.8	4.453	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	517	1355	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	402	153	1466	0.274	403	0.4	3.725	A
3 - Weetshaw Lane	195	393	1323	0.147	195	0.2	3.512	A
4 - Cudworth Parkway NE	506	11	1497	0.338	507	0.6	4.001	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: WEETSHAW LANE ROUNDABOUT - 2036.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Weetshaw Lane Roundabout
Report generation date: 4/23/2026 11:37:33 AM

»2036 | Base | AM
»2036 | Base | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2036 - Base									
1 - Proposed Site Access	D1	0.0	0.00	0.00	A	D2	0.0	0.00	0.00	A
2 - Cudworth Parkway SW		0.8	4.70	0.42	A		0.8	4.90	0.43	A
3 - Weetshaw Lane		0.3	4.13	0.19	A		0.4	4.41	0.25	A
4 - Cudworth Parkway NE		1.0	5.17	0.49	A		1.1	5.24	0.50	A

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

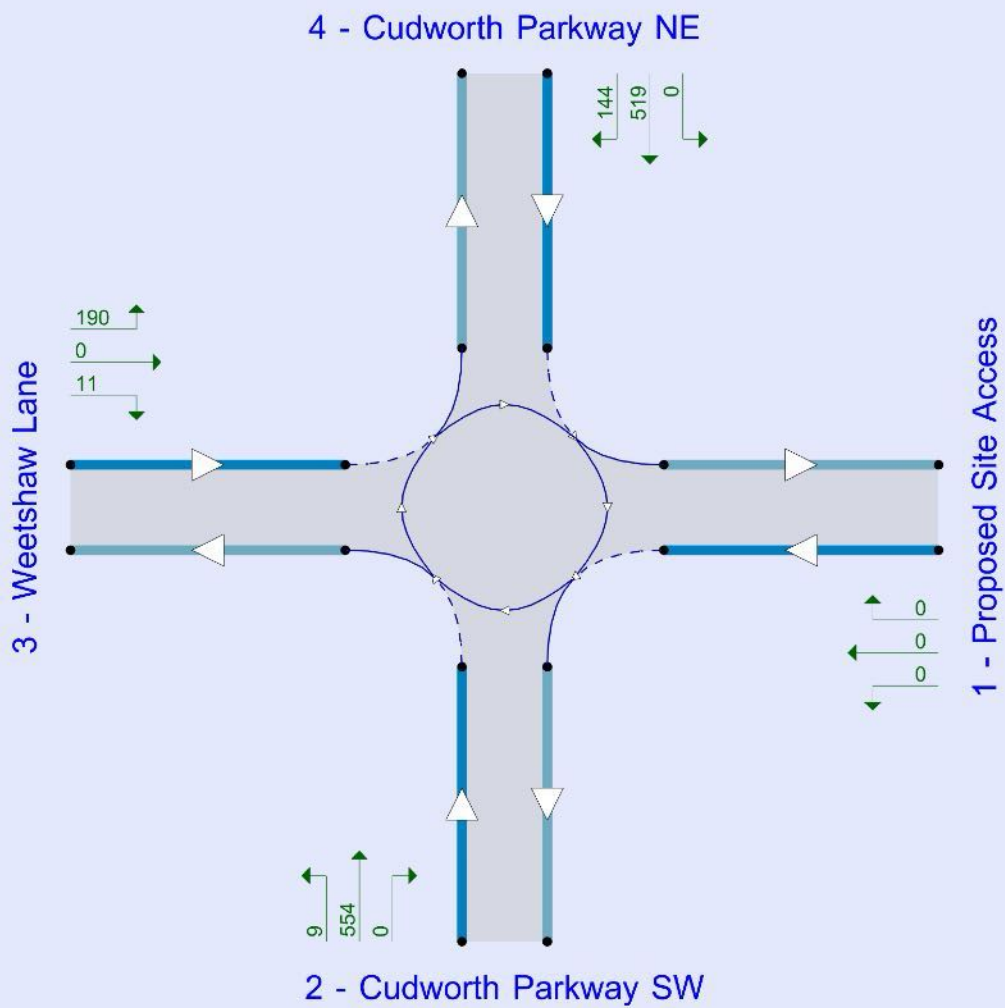
File summary

File Description

Title	Cudworth Parkway
Location	Barnsley
Site number	2466
Date	9/10/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	2466
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base	AM	ONE HOUR	00:00	01:30	15
D2	2036	Base	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2036 | 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	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	4.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.84	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Proposed Site Access		
2	Cudworth Parkway SW		
3	Weetshaw Lane		
4	Cudworth Parkway NE		

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 - Proposed Site Access	3.00	6.02	16.6	40.0	125.0	18.0		
2 - Cudworth Parkway SW	4.68	5.06	10.0	28.0	25.0	26.0		
3 - Weetshaw Lane	4.23	5.03	15.5	38.0	25.0	19.0		
4 - Cudworth Parkway NE	3.83	5.14	15.9	20.0	25.0	24.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Proposed Site Access	0.444	1585
2 - Cudworth Parkway SW	0.643	1564
3 - Weetshaw Lane	0.656	1580
4 - Cudworth Parkway NE	0.628	1504

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	0	100.000
2 - Cudworth Parkway SW		✓	563	100.000
3 - Weetshaw Lane		✓	201	100.000
4 - Cudworth Parkway NE		✓	663	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	0	0	0	0
	2 - Cudworth Parkway SW	0	0	9	554
	3 - Weetshaw Lane	0	11	0	190
	4 - Cudworth Parkway NE	0	519	144	0

Vehicle Mix

Heavy Vehicle %

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.00	0.00	0.0	A
2 - Cudworth Parkway SW	0.42	4.70	0.8	A
3 - Weetshaw Lane	0.19	4.13	0.3	A
4 - Cudworth Parkway NE	0.49	5.17	1.0	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	505	1360	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	424	108	1495	0.284	422	0.4	3.685	A
3 - Weetshaw Lane	151	415	1308	0.116	151	0.1	3.420	A
4 - Cudworth Parkway NE	499	8	1499	0.333	497	0.5	3.944	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	605	1316	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	506	129	1481	0.342	506	0.6	4.058	A
3 - Weetshaw Lane	181	498	1254	0.144	181	0.2	3.689	A
4 - Cudworth Parkway NE	596	10	1498	0.398	595	0.7	4.384	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	741	1256	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	620	158	1462	0.424	619	0.8	4.690	A
3 - Weetshaw Lane	221	609	1181	0.187	221	0.3	4.126	A
4 - Cudworth Parkway NE	730	12	1496	0.488	729	1.0	5.150	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	742	1255	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	620	159	1462	0.424	620	0.8	4.701	A
3 - Weetshaw Lane	221	610	1180	0.188	221	0.3	4.130	A
4 - Cudworth Parkway NE	730	12	1496	0.488	730	1.0	5.166	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	607	1315	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	506	130	1481	0.342	507	0.6	4.072	A
3 - Weetshaw Lane	181	499	1253	0.144	181	0.2	3.694	A
4 - Cudworth Parkway NE	596	10	1498	0.398	597	0.7	4.404	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	508	1359	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	424	109	1494	0.284	424	0.4	3.702	A
3 - Weetshaw Lane	151	418	1306	0.116	151	0.1	3.431	A
4 - Cudworth Parkway NE	499	8	1499	0.333	500	0.6	3.966	A

2036 | 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	Weetshaw Lane Roundabout	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	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2036	Base	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	0	100.000
2 - Cudworth Parkway SW		✓	546	100.000
3 - Weetshaw Lane		✓	270	100.000
4 - Cudworth Parkway NE		✓	675	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	0	0	0	0
	2 - Cudworth Parkway SW	0	0	12	534
	3 - Weetshaw Lane	0	8	0	262
	4 - Cudworth Parkway NE	0	456	219	0

Vehicle Mix

Heavy Vehicle %

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.00	0.00	0.0	A
2 - Cudworth Parkway SW	0.43	4.90	0.8	A
3 - Weetshaw Lane	0.25	4.41	0.4	A
4 - Cudworth Parkway NE	0.50	5.24	1.1	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	512	1357	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	411	164	1459	0.282	409	0.4	3.767	A
3 - Weetshaw Lane	203	400	1318	0.154	202	0.2	3.550	A
4 - Cudworth Parkway NE	508	6	1500	0.339	506	0.6	3.974	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	613	1312	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	491	197	1438	0.341	490	0.6	4.177	A
3 - Weetshaw Lane	243	480	1266	0.192	242	0.3	3.869	A
4 - Cudworth Parkway NE	607	7	1499	0.405	606	0.7	4.428	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	751	1251	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	601	241	1409	0.427	600	0.8	4.887	A
3 - Weetshaw Lane	297	587	1195	0.249	297	0.4	4.407	A
4 - Cudworth Parkway NE	743	9	1498	0.496	742	1.1	5.226	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	752	1251	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	601	241	1409	0.427	601	0.8	4.900	A
3 - Weetshaw Lane	297	588	1194	0.249	297	0.4	4.413	A
4 - Cudworth Parkway NE	743	9	1498	0.496	743	1.1	5.242	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	615	1312	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	491	197	1437	0.342	492	0.6	4.192	A
3 - Weetshaw Lane	243	481	1265	0.192	243	0.3	3.879	A
4 - Cudworth Parkway NE	607	7	1499	0.405	608	0.8	4.450	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	515	1356	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	411	165	1458	0.282	412	0.4	3.785	A
3 - Weetshaw Lane	203	403	1316	0.154	204	0.2	3.561	A
4 - Cudworth Parkway NE	508	6	1500	0.339	509	0.6	3.999	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: WEETSHAW LANE ROUNDABOUT - 2036 PLUS COMMITTED.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Weetshaw Lane Roundabout
Report generation date: 4/23/2026 11:42:28 AM

»2036 | Base PLUS COMMITTED | AM
»2036 | Base PLUS COMMITTED | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2036 - Base PLUS COMMITTED									
1 - Proposed Site Access	D1	0.0	0.00	0.00	A	D2	0.0	0.00	0.00	A
2 - Cudworth Parkway SW		0.9	4.89	0.44	A		0.9	5.17	0.46	A
3 - Weetshaw Lane		0.3	4.22	0.20	A		0.4	4.61	0.27	A
4 - Cudworth Parkway NE		1.2	5.64	0.53	A		1.3	5.76	0.54	A

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

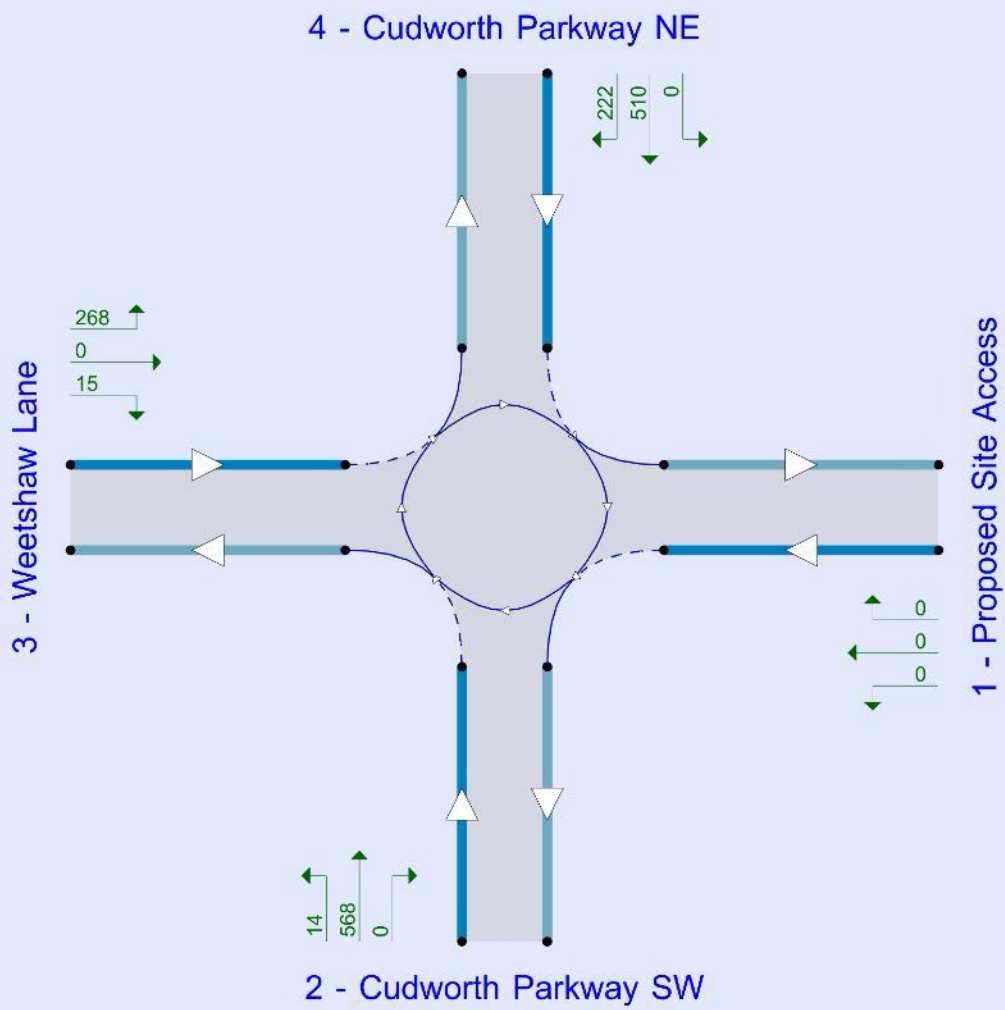
File summary

File Description

Title	Cudworth Parkway
Location	Barnsley
Site number	2466
Date	9/10/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	2466
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15
D2	2036	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2036 | Base PLUS COMMITTED | 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	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	5.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.16	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Proposed Site Access		
2	Cudworth Parkway SW		
3	Weetshaw Lane		
4	Cudworth Parkway NE		

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 - Proposed Site Access	3.00	6.02	16.6	40.0	125.0	18.0		
2 - Cudworth Parkway SW	4.68	5.06	10.0	28.0	25.0	26.0		
3 - Weetshaw Lane	4.23	5.03	15.5	38.0	25.0	19.0		
4 - Cudworth Parkway NE	3.83	5.14	15.9	20.0	25.0	24.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Proposed Site Access	0.444	1585
2 - Cudworth Parkway SW	0.643	1564
3 - Weetshaw Lane	0.656	1580
4 - Cudworth Parkway NE	0.628	1504

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	0	100.000
2 - Cudworth Parkway SW		✓	588	100.000
3 - Weetshaw Lane		✓	207	100.000
4 - Cudworth Parkway NE		✓	720	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	0	0	0	0
	2 - Cudworth Parkway SW	0	0	16	572
	3 - Weetshaw Lane	0	14	0	193
	4 - Cudworth Parkway NE	0	569	151	0

Vehicle Mix

Heavy Vehicle %

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.00	0.00	0.0	A
2 - Cudworth Parkway SW	0.44	4.89	0.9	A
3 - Weetshaw Lane	0.20	4.22	0.3	A
4 - Cudworth Parkway NE	0.53	5.64	1.2	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	550	1340	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	443	113	1491	0.297	441	0.5	3.763	A
3 - Weetshaw Lane	156	429	1299	0.120	155	0.1	3.460	A
4 - Cudworth Parkway NE	542	10	1497	0.362	540	0.6	4.123	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	659	1292	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	529	136	1477	0.358	528	0.6	4.170	A
3 - Weetshaw Lane	186	514	1243	0.150	186	0.2	3.745	A
4 - Cudworth Parkway NE	647	13	1496	0.433	646	0.8	4.655	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	807	1227	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	647	166	1457	0.444	646	0.9	4.876	A
3 - Weetshaw Lane	228	629	1168	0.195	228	0.3	4.212	A
4 - Cudworth Parkway NE	793	15	1494	0.531	791	1.2	5.619	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	808	1226	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	647	166	1457	0.444	647	0.9	4.889	A
3 - Weetshaw Lane	228	630	1167	0.195	228	0.3	4.216	A
4 - Cudworth Parkway NE	793	15	1494	0.531	793	1.2	5.643	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	661	1291	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	529	136	1477	0.358	530	0.6	4.187	A
3 - Weetshaw Lane	186	515	1242	0.150	186	0.2	3.750	A
4 - Cudworth Parkway NE	647	13	1496	0.433	649	0.8	4.682	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	553	1339	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	443	114	1491	0.297	443	0.5	3.784	A
3 - Weetshaw Lane	156	431	1297	0.120	156	0.2	3.472	A
4 - Cudworth Parkway NE	542	11	1497	0.362	543	0.6	4.154	A

2036 | Base PLUS COMMITTED | 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	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	5.34	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.34	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2036	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	0	100.000
2 - Cudworth Parkway SW		✓	582	100.000
3 - Weetshaw Lane		✓	283	100.000
4 - Cudworth Parkway NE		✓	732	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	0	0	0	0
	2 - Cudworth Parkway SW	0	0	14	568
	3 - Weetshaw Lane	0	15	0	268
	4 - Cudworth Parkway NE	0	510	222	0

Vehicle Mix

Heavy Vehicle %

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.00	0.00	0.0	A
2 - Cudworth Parkway SW	0.46	5.17	0.9	A
3 - Weetshaw Lane	0.27	4.61	0.4	A
4 - Cudworth Parkway NE	0.54	5.76	1.3	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	560	1336	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	438	166	1457	0.301	436	0.5	3.872	A
3 - Weetshaw Lane	213	426	1301	0.164	212	0.2	3.632	A
4 - Cudworth Parkway NE	551	11	1497	0.368	549	0.6	4.165	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	671	1287	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	523	199	1436	0.364	523	0.6	4.333	A
3 - Weetshaw Lane	254	510	1246	0.204	254	0.3	3.993	A
4 - Cudworth Parkway NE	658	13	1496	0.440	657	0.9	4.718	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	821	1220	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	641	244	1407	0.455	640	0.9	5.151	A
3 - Weetshaw Lane	312	624	1171	0.266	311	0.4	4.606	A
4 - Cudworth Parkway NE	806	16	1494	0.540	804	1.3	5.730	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	822	1220	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	641	244	1407	0.455	641	0.9	5.167	A
3 - Weetshaw Lane	312	625	1170	0.266	312	0.4	4.613	A
4 - Cudworth Parkway NE	806	17	1494	0.540	806	1.3	5.757	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	673	1286	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	523	200	1435	0.364	524	0.6	4.352	A
3 - Weetshaw Lane	254	512	1244	0.204	255	0.3	4.004	A
4 - Cudworth Parkway NE	658	14	1496	0.440	660	0.9	4.746	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	0	563	1335	0.000	0	0.0	0.000	A
2 - Cudworth Parkway SW	438	167	1456	0.301	439	0.5	3.894	A
3 - Weetshaw Lane	213	428	1299	0.164	213	0.2	3.649	A
4 - Cudworth Parkway NE	551	11	1497	0.368	552	0.6	4.194	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: WEETSHAW LANE ROUNDABOUT - 2036 PLUS COMMITTED PLUS DEVELOPMENT.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026\Weetshaw Lane Roundabout
Report generation date: 4/23/2026 11:47:00 AM

»2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM
»2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2036 - Base PLUS COMMITTED PLUS DEVELOPMENT										
1 - Proposed Site Access	D1	0.1	3.43	0.06	A	D2	0.0	3.31	0.02	A
2 - Cudworth Parkway SW		0.9	5.13	0.46	A		1.0	5.44	0.48	A
3 - Weetshaw Lane		0.3	4.37	0.20	A		0.4	4.80	0.28	A
4 - Cudworth Parkway NE		1.3	5.82	0.54	A		1.5	6.28	0.57	A

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

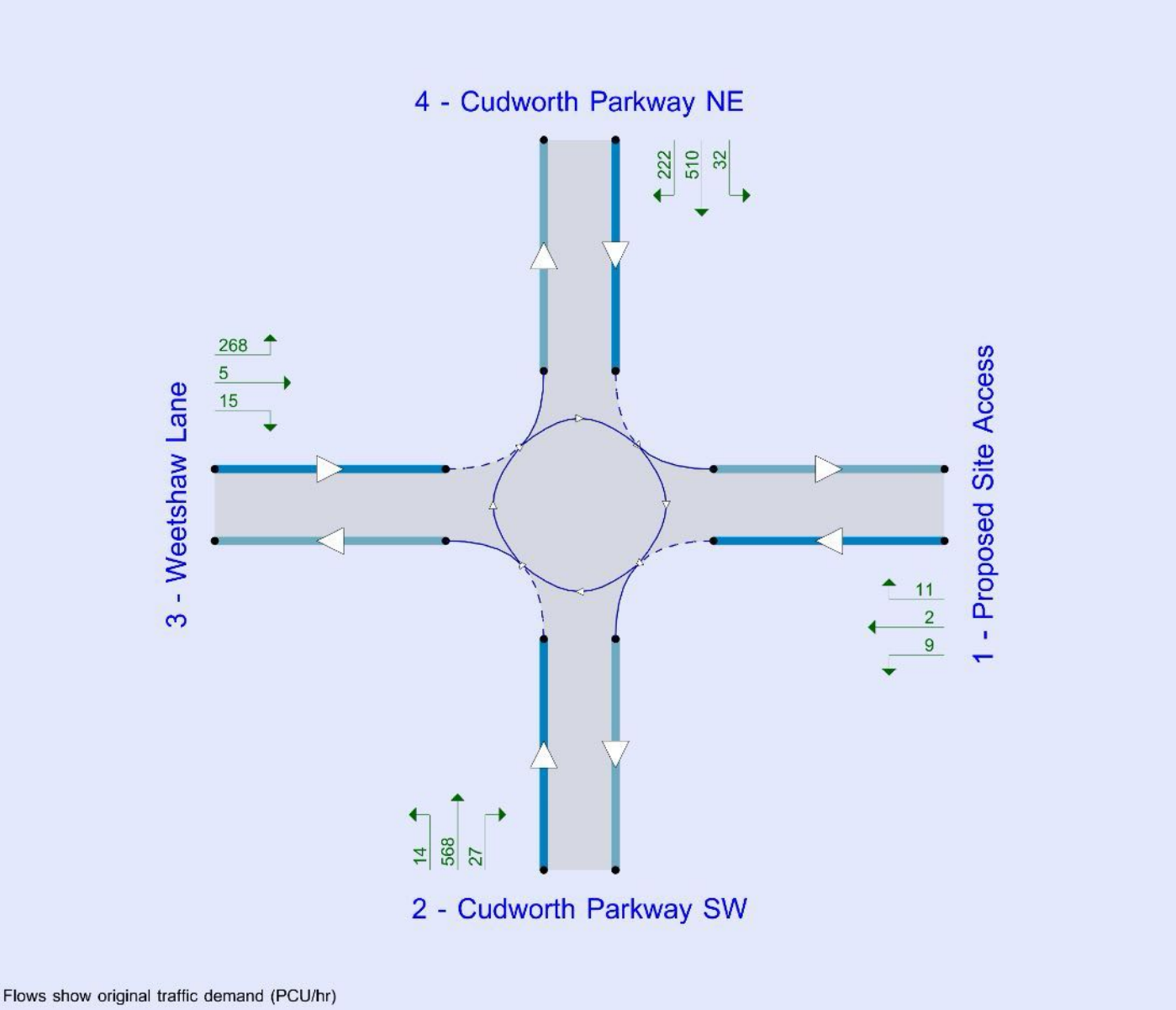
Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description	
Title	Cudworth Parkway
Location	Barnsley
Site number	2466
Date	9/10/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	2466
Enumerator	LEIGHOGDEN5BEE\leighogden
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15
D2	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2036 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Weetshaw Lane Roundabout	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

Arms

Arms

Arm	Name	Description	No give-way line
1	Proposed Site Access		
2	Cudworth Parkway SW		
3	Weetshaw Lane		
4	Cudworth Parkway NE		

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 - Proposed Site Access	3.00	6.02	16.6	40.0	125.0	18.0		
2 - Cudworth Parkway SW	4.68	5.06	10.0	28.0	25.0	26.0		
3 - Weetshaw Lane	4.23	5.03	15.5	38.0	25.0	19.0		
4 - Cudworth Parkway NE	3.83	5.14	15.9	20.0	25.0	24.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Proposed Site Access	0.444	1585
2 - Cudworth Parkway SW	0.643	1564
3 - Weetshaw Lane	0.656	1580
4 - Cudworth Parkway NE	0.628	1504

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	66	100.000
2 - Cudworth Parkway SW		✓	598	100.000
3 - Weetshaw Lane		✓	209	100.000
4 - Cudworth Parkway NE		✓	732	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	0	28	5	33
	2 - Cudworth Parkway SW	10	0	16	572
	3 - Weetshaw Lane	2	14	0	193
	4 - Cudworth Parkway NE	12	569	151	0

Vehicle Mix

Heavy Vehicle %

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
From	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.06	3.43	0.1	A
2 - Cudworth Parkway SW	0.46	5.13	0.9	A
3 - Weetshaw Lane	0.20	4.37	0.3	A
4 - Cudworth Parkway NE	0.54	5.82	1.3	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	50	550	1341	0.037	50	0.0	3.067	A
2 - Cudworth Parkway SW	450	142	1473	0.306	448	0.5	3.857	A
3 - Weetshaw Lane	157	461	1278	0.123	157	0.2	3.530	A
4 - Cudworth Parkway NE	551	19	1492	0.369	549	0.6	4.188	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	59	659	1292	0.046	59	0.1	3.211	A
2 - Cudworth Parkway SW	538	170	1455	0.369	537	0.6	4.311	A
3 - Weetshaw Lane	188	552	1218	0.154	188	0.2	3.844	A
4 - Cudworth Parkway NE	658	23	1489	0.442	657	0.9	4.754	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	73	806	1227	0.059	73	0.1	3.430	A
2 - Cudworth Parkway SW	658	208	1431	0.460	657	0.9	5.113	A
3 - Weetshaw Lane	230	676	1137	0.202	230	0.3	4.366	A
4 - Cudworth Parkway NE	806	29	1486	0.542	804	1.3	5.794	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	73	808	1226	0.059	73	0.1	3.432	A
2 - Cudworth Parkway SW	658	208	1430	0.460	658	0.9	5.129	A
3 - Weetshaw Lane	230	677	1136	0.203	230	0.3	4.371	A
4 - Cudworth Parkway NE	806	29	1486	0.542	806	1.3	5.822	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	59	662	1291	0.046	59	0.1	3.214	A
2 - Cudworth Parkway SW	538	170	1455	0.370	539	0.6	4.330	A
3 - Weetshaw Lane	188	554	1217	0.154	188	0.2	3.852	A
4 - Cudworth Parkway NE	658	23	1489	0.442	660	0.9	4.784	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	50	554	1339	0.037	50	0.0	3.070	A
2 - Cudworth Parkway SW	450	143	1472	0.306	451	0.5	3.879	A
3 - Weetshaw Lane	157	464	1276	0.123	158	0.2	3.542	A
4 - Cudworth Parkway NE	551	20	1492	0.369	552	0.6	4.219	A

2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2036 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Weetshaw Lane Roundabout	Standard Roundabout		1, 2, 3, 4	5.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.69	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Proposed Site Access		✓	22	100.000
2 - Cudworth Parkway SW		✓	609	100.000
3 - Weetshaw Lane		✓	288	100.000
4 - Cudworth Parkway NE		✓	764	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	1 - Proposed Site Access	0	9	2	11
	2 - Cudworth Parkway SW	27	0	14	568
	3 - Weetshaw Lane	5	15	0	268
	4 - Cudworth Parkway NE	32	510	222	0

Vehicle Mix

Heavy Vehicle %

	To				
		1 - Proposed Site Access	2 - Cudworth Parkway SW	3 - Weetshaw Lane	4 - Cudworth Parkway NE
	From				
	1 - Proposed Site Access	10	10	10	10
	2 - Cudworth Parkway SW	10	10	10	10
	3 - Weetshaw Lane	10	10	10	10
	4 - Cudworth Parkway NE	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Proposed Site Access	0.02	3.31	0.0	A
2 - Cudworth Parkway SW	0.48	5.44	1.0	A
3 - Weetshaw Lane	0.28	4.80	0.4	A
4 - Cudworth Parkway NE	0.57	6.28	1.5	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	17	560	1336	0.012	17	0.0	3.000	A
2 - Cudworth Parkway SW	458	176	1451	0.316	456	0.5	3.974	A
3 - Weetshaw Lane	217	454	1282	0.169	216	0.2	3.710	A
4 - Cudworth Parkway NE	575	35	1482	0.388	572	0.7	4.341	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	20	671	1287	0.015	20	0.0	3.124	A
2 - Cudworth Parkway SW	547	211	1428	0.383	547	0.7	4.487	A
3 - Weetshaw Lane	259	544	1223	0.212	259	0.3	4.104	A
4 - Cudworth Parkway NE	687	42	1477	0.465	686	0.9	4.996	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	24	821	1220	0.020	24	0.0	3.309	A
2 - Cudworth Parkway SW	671	258	1398	0.480	669	1.0	5.422	A
3 - Weetshaw Lane	317	666	1143	0.277	317	0.4	4.787	A
4 - Cudworth Parkway NE	841	52	1472	0.572	839	1.4	6.242	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	24	822	1220	0.020	24	0.0	3.311	A
2 - Cudworth Parkway SW	671	259	1398	0.480	670	1.0	5.444	A
3 - Weetshaw Lane	317	667	1142	0.278	317	0.4	4.797	A
4 - Cudworth Parkway NE	841	52	1471	0.572	841	1.5	6.281	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	20	673	1286	0.015	20	0.0	3.127	A
2 - Cudworth Parkway SW	547	212	1428	0.383	549	0.7	4.510	A
3 - Weetshaw Lane	259	546	1222	0.212	259	0.3	4.117	A
4 - Cudworth Parkway NE	687	42	1477	0.465	689	1.0	5.035	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Proposed Site Access	17	563	1335	0.012	17	0.0	3.003	A
2 - Cudworth Parkway SW	458	177	1450	0.316	459	0.5	4.000	A
3 - Weetshaw Lane	217	457	1280	0.169	217	0.2	3.727	A
4 - Cudworth Parkway NE	575	35	1482	0.388	576	0.7	4.378	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: SHAFTON ROUNDABOUT - 2026 BASE.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026
Report generation date: 4/21/2026 3:09:29 PM

»2026 | Base | AM
»2026 | Base | PM

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 - Base										
Arm C	D1	1.0	5.19	0.47	A	D2	2.2	8.81	0.67	A
Arm D		0.6	5.45	0.36	A		0.6	6.00	0.37	A
Arm A		1.0	6.11	0.48	A		1.3	6.59	0.54	A
Arm B		0.9	8.54	0.45	A		1.5	10.79	0.58	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	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base	AM	ONE HOUR	08:00	09:30	15
D2	2026	Base	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 | 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		C, D, A, B	6.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.13	A

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	617	100.000
D		✓	367	100.000
A		✓	553	100.000
B		✓	351	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		C	D	A	B
	C	0	152	379	86
	D	294	0	2	71
	A	471	8	0	74
	B	133	88	130	0

Vehicle Mix

Heavy Vehicle %

	To				
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.47	5.19	1.0	A
D	0.36	5.45	0.6	A
A	0.48	6.11	1.0	A
B	0.45	8.54	0.9	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	465	169	1493	0.311	463	0.5	3.838	A
D	276	446	1261	0.219	275	0.3	4.013	A
A	416	338	1355	0.307	414	0.5	4.201	A
B	264	579	1005	0.263	263	0.4	5.321	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	555	203	1471	0.377	554	0.7	4.314	A
D	330	534	1206	0.274	330	0.4	4.516	A
A	497	405	1313	0.379	496	0.7	4.843	A
B	316	694	940	0.336	315	0.6	6.331	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	679	248	1443	0.471	678	1.0	5.171	A
D	404	654	1132	0.357	403	0.6	5.428	A
A	609	496	1257	0.484	607	1.0	6.083	A
B	386	849	851	0.454	385	0.9	8.477	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	679	249	1442	0.471	679	1.0	5.191	A
D	404	655	1131	0.357	404	0.6	5.446	A
A	609	497	1256	0.485	609	1.0	6.114	A
B	386	851	850	0.455	386	0.9	8.545	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	555	204	1470	0.377	556	0.7	4.336	A
D	330	536	1205	0.274	331	0.4	4.536	A
A	497	406	1313	0.379	499	0.7	4.873	A
B	316	697	938	0.336	317	0.6	6.387	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	465	171	1492	0.311	465	0.5	3.861	A
D	276	449	1259	0.219	277	0.3	4.033	A
A	416	340	1354	0.308	417	0.5	4.232	A
B	264	583	1003	0.263	265	0.4	5.367	A

2026 | 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		C, D, A, B	8.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.16	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	Base	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	838	100.000
D		✓	349	100.000
A		✓	632	100.000
B		✓	461	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		C	D	A	B
	C	0	250	520	68
	D	206	0	25	118
	A	519	9	0	104
	B	143	183	135	0

Vehicle Mix

Heavy Vehicle %

		To			
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.67	8.81	2.2	A
D	0.37	6.00	0.6	A
A	0.54	6.59	1.3	A
B	0.58	10.79	1.5	B

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	631	245	1445	0.437	628	0.8	4.827	A
D	263	541	1202	0.219	262	0.3	4.207	A
A	476	294	1383	0.344	474	0.6	4.346	A
B	347	550	1022	0.340	345	0.6	5.828	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	753	293	1414	0.533	752	1.2	5.965	A
D	314	649	1135	0.276	313	0.4	4.816	A
A	568	352	1346	0.422	567	0.8	5.077	A
B	414	659	960	0.432	413	0.8	7.231	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	923	358	1373	0.672	919	2.2	8.652	A
D	384	793	1046	0.367	383	0.6	5.969	A
A	696	430	1297	0.536	694	1.3	6.542	A
B	508	806	875	0.580	505	1.5	10.603	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	923	360	1372	0.673	923	2.2	8.810	A
D	384	796	1044	0.368	384	0.6	6.002	A
A	696	432	1297	0.537	696	1.3	6.588	A
B	508	808	874	0.581	507	1.5	10.787	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	753	296	1412	0.533	757	1.3	6.080	A
D	314	653	1132	0.277	315	0.4	4.848	A
A	568	353	1345	0.422	570	0.8	5.120	A
B	414	662	958	0.433	417	0.9	7.352	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	631	247	1443	0.437	633	0.9	4.894	A
D	263	546	1199	0.219	263	0.3	4.234	A
A	476	296	1381	0.344	477	0.6	4.383	A
B	347	554	1020	0.340	348	0.6	5.904	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: SHAFTON ROUNDABOUT - 2026 BASE PLUS COMMITTED.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026
Report generation date: 4/23/2026 11:19:46 AM

»2026 | Base PLUS COMMITTED | AM
»2026 | Base PLUS COMMITTED | PM

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 - Base PLUS COMMITTED										
Arm C	D1	1.0	5.19	0.47	A	D2	2.2	8.81	0.67	A
Arm D		0.6	5.45	0.36	A		0.6	6.00	0.37	A
Arm A		1.0	6.11	0.48	A		1.3	6.59	0.54	A
Arm B		0.9	8.54	0.45	A		1.5	10.79	0.58	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	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15
D2	2026	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 | Base PLUS COMMITTED | 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		C, D, A, B	6.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.13	A

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	617	100.000
D		✓	367	100.000
A		✓	553	100.000
B		✓	351	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		C	D	A	B
	C	0	152	379	86
	D	294	0	2	71
	A	471	8	0	74
	B	133	88	130	0

Vehicle Mix

Heavy Vehicle %

	To				
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.47	5.19	1.0	A
D	0.36	5.45	0.6	A
A	0.48	6.11	1.0	A
B	0.45	8.54	0.9	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	465	169	1493	0.311	463	0.5	3.838	A
D	276	446	1261	0.219	275	0.3	4.013	A
A	416	338	1355	0.307	414	0.5	4.201	A
B	264	579	1005	0.263	263	0.4	5.321	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	555	203	1471	0.377	554	0.7	4.314	A
D	330	534	1206	0.274	330	0.4	4.516	A
A	497	405	1313	0.379	496	0.7	4.843	A
B	316	694	940	0.336	315	0.6	6.331	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	679	248	1443	0.471	678	1.0	5.171	A
D	404	654	1132	0.357	403	0.6	5.428	A
A	609	496	1257	0.484	607	1.0	6.083	A
B	386	849	851	0.454	385	0.9	8.477	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	679	249	1442	0.471	679	1.0	5.191	A
D	404	655	1131	0.357	404	0.6	5.446	A
A	609	497	1256	0.485	609	1.0	6.114	A
B	386	851	850	0.455	386	0.9	8.545	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	555	204	1470	0.377	556	0.7	4.336	A
D	330	536	1205	0.274	331	0.4	4.536	A
A	497	406	1313	0.379	499	0.7	4.873	A
B	316	697	938	0.336	317	0.6	6.387	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	465	171	1492	0.311	465	0.5	3.861	A
D	276	449	1259	0.219	277	0.3	4.033	A
A	416	340	1354	0.308	417	0.5	4.232	A
B	264	583	1003	0.263	265	0.4	5.367	A

2026 | Base PLUS COMMITTED | 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		C, D, A, B	8.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.16	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	838	100.000
D		✓	349	100.000
A		✓	632	100.000
B		✓	461	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		C	D	A	B
	C	0	250	520	68
	D	206	0	25	118
	A	519	9	0	104
	B	143	183	135	0

Vehicle Mix

Heavy Vehicle %

		To			
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.67	8.81	2.2	A
D	0.37	6.00	0.6	A
A	0.54	6.59	1.3	A
B	0.58	10.79	1.5	B

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	631	245	1445	0.437	628	0.8	4.827	A
D	263	541	1202	0.219	262	0.3	4.207	A
A	476	294	1383	0.344	474	0.6	4.346	A
B	347	550	1022	0.340	345	0.6	5.828	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	753	293	1414	0.533	752	1.2	5.965	A
D	314	649	1135	0.276	313	0.4	4.816	A
A	568	352	1346	0.422	567	0.8	5.077	A
B	414	659	960	0.432	413	0.8	7.231	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	923	358	1373	0.672	919	2.2	8.652	A
D	384	793	1046	0.367	383	0.6	5.969	A
A	696	430	1297	0.536	694	1.3	6.542	A
B	508	806	875	0.580	505	1.5	10.603	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	923	360	1372	0.673	923	2.2	8.810	A
D	384	796	1044	0.368	384	0.6	6.002	A
A	696	432	1297	0.537	696	1.3	6.588	A
B	508	808	874	0.581	507	1.5	10.787	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	753	296	1412	0.533	757	1.3	6.080	A
D	314	653	1132	0.277	315	0.4	4.848	A
A	568	353	1345	0.422	570	0.8	5.120	A
B	414	662	958	0.433	417	0.9	7.352	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	631	247	1443	0.437	633	0.9	4.894	A
D	263	546	1199	0.219	263	0.3	4.234	A
A	476	296	1381	0.344	477	0.6	4.383	A
B	347	554	1020	0.340	348	0.6	5.904	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: SHAFTON ROUNDABOUT - 2026 BASE PLUS COMMITTED PLUS DEVELOPMENT.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026
Report generation date: 4/23/2026 11:21:31 AM

»2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM
»2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2026 - Base PLUS COMMITTED PLUS DEVELOPMENT									
Arm C	D1	1.1	5.53	0.50	A	D2	2.6	10.06	0.71	B
Arm D		0.7	5.77	0.37	A		0.7	6.40	0.39	A
Arm A		1.1	6.34	0.50	A		1.5	7.28	0.58	A
Arm B		1.1	9.30	0.50	A		1.8	12.52	0.63	B

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.

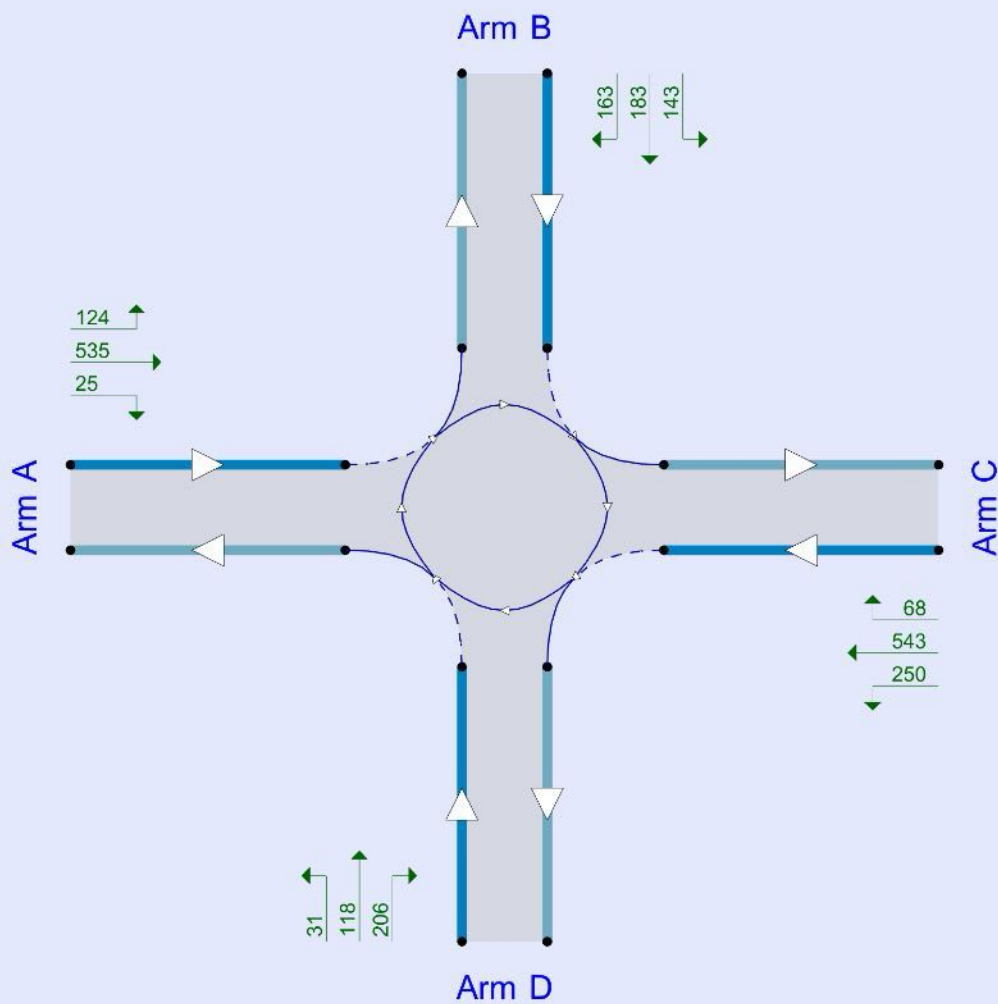
File summary

File Description

Title	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15
D2	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2026 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	6.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.54	A

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	640	100.000
D		✓	373	100.000
A		✓	574	100.000
B		✓	379	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		C	D	A	B
	C	0	152	402	86
	D	294	0	8	71
	A	480	10	0	84
	B	133	88	158	0

Vehicle Mix

Heavy Vehicle %

	To				
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.50	5.53	1.1	A
D	0.37	5.77	0.7	A
A	0.50	6.34	1.1	A
B	0.50	9.30	1.1	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	482	192	1478	0.326	480	0.5	3.957	A
D	281	484	1237	0.227	280	0.3	4.131	A
A	432	338	1355	0.319	430	0.5	4.271	A
B	285	587	1001	0.285	284	0.4	5.508	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	575	230	1454	0.396	575	0.7	4.498	A
D	335	580	1178	0.285	335	0.4	4.696	A
A	516	405	1313	0.393	515	0.7	4.955	A
B	341	704	934	0.365	340	0.6	6.657	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	705	281	1422	0.496	703	1.1	5.499	A
D	411	709	1097	0.374	410	0.7	5.752	A
A	632	496	1257	0.503	630	1.1	6.305	A
B	417	861	844	0.494	416	1.1	9.206	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	705	282	1421	0.496	705	1.1	5.526	A
D	411	711	1096	0.375	411	0.7	5.774	A
A	632	497	1256	0.503	632	1.1	6.341	A
B	417	863	843	0.495	417	1.1	9.301	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	575	231	1453	0.396	577	0.7	4.524	A
D	335	583	1176	0.285	336	0.4	4.719	A
A	516	406	1312	0.393	518	0.7	4.991	A
B	341	707	932	0.365	342	0.6	6.733	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	482	193	1477	0.326	483	0.5	3.985	A
D	281	487	1235	0.227	281	0.3	4.153	A
A	432	340	1354	0.319	433	0.5	4.305	A
B	285	591	999	0.286	286	0.4	5.566	A

2026 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2026 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	9.22	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.22	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	861	100.000
D		✓	355	100.000
A		✓	684	100.000
B		✓	489	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		C	D	A	B
From	C	0	250	543	68
	D	206	0	31	118
	A	535	25	0	124
	B	143	183	163	0

Vehicle Mix

Heavy Vehicle %

	To				
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.71	10.06	2.6	B
D	0.39	6.40	0.7	A
A	0.58	7.28	1.5	A
B	0.63	12.52	1.8	B

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	648	277	1424	0.455	645	0.9	5.058	A
D	267	579	1178	0.227	266	0.3	4.335	A
A	515	294	1383	0.372	512	0.6	4.536	A
B	368	574	1009	0.365	366	0.6	6.137	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	774	333	1389	0.557	772	1.4	6.400	A
D	319	694	1107	0.288	319	0.4	5.020	A
A	615	352	1346	0.457	614	0.9	5.397	A
B	440	687	943	0.466	438	0.9	7.819	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	948	406	1342	0.706	943	2.6	9.801	A
D	391	848	1012	0.386	390	0.7	6.356	A
A	753	430	1298	0.580	751	1.5	7.212	A
B	538	841	856	0.629	535	1.8	12.221	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	948	408	1341	0.707	948	2.6	10.058	B
D	391	852	1009	0.387	391	0.7	6.404	A
A	753	432	1297	0.581	753	1.5	7.279	A
B	538	843	854	0.630	538	1.8	12.519	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	774	336	1387	0.558	779	1.4	6.564	A
D	319	700	1103	0.289	320	0.5	5.065	A
A	615	354	1345	0.457	617	0.9	5.457	A
B	440	691	941	0.467	443	1.0	8.000	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	648	280	1422	0.456	650	0.9	5.143	A
D	267	585	1175	0.227	268	0.3	4.369	A
A	515	296	1381	0.373	516	0.7	4.581	A
B	368	578	1006	0.366	369	0.6	6.234	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: SHAFTON ROUNDABOUT - 2036.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026
Report generation date: 4/23/2026 10:57:24 AM

»2036 | Base | AM
»2036 | Base | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2036 - Base									
Arm C	D1	1.1	5.62	0.50	A	D2	2.8	10.77	0.72	B
Arm D		0.7	5.85	0.38	A		0.7	6.65	0.40	A
Arm A		1.2	6.73	0.53	A		1.6	7.44	0.59	A
Arm B		1.1	9.70	0.51	A		2.0	13.42	0.65	B

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

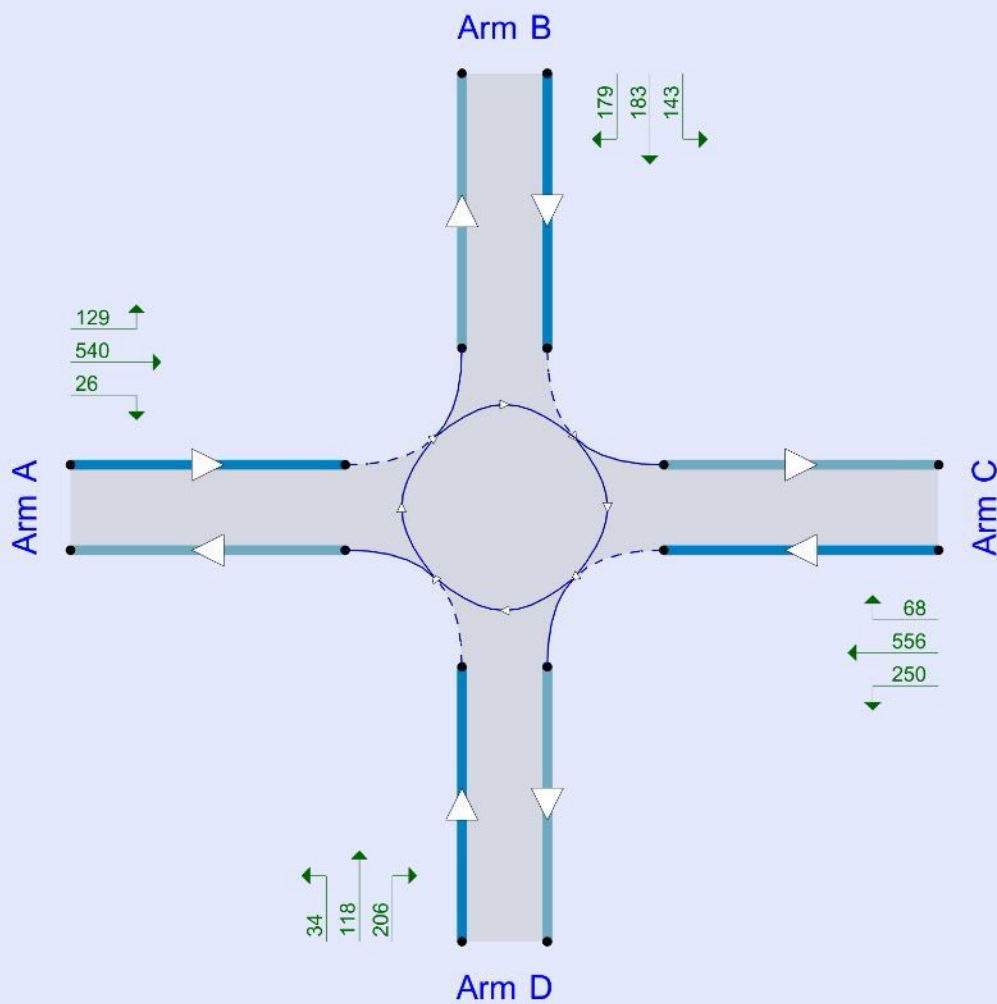
File summary

File Description

Title	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base	AM	ONE HOUR	00:00	01:30	15
D2	2036	Base	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2036 | 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		C, D, A, B	6.78	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.78	A

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	645	100.000
D		✓	374	100.000
A		✓	607	100.000
B		✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		C	D	A	B
	C	0	152	407	86
	D	294	0	9	71
	A	494	13	0	100
	B	133	88	164	0

Vehicle Mix

Heavy Vehicle %

	To				
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.50	5.62	1.1	A
D	0.38	5.85	0.7	A
A	0.53	6.73	1.2	A
B	0.51	9.70	1.1	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	486	198	1474	0.329	483	0.5	3.988	A
D	282	492	1232	0.229	280	0.3	4.156	A
A	457	338	1355	0.337	455	0.6	4.388	A
B	290	600	993	0.292	288	0.4	5.601	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	580	238	1449	0.400	579	0.7	4.547	A
D	336	590	1172	0.287	336	0.4	4.736	A
A	546	405	1313	0.415	545	0.8	5.147	A
B	346	719	925	0.374	345	0.6	6.816	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	710	291	1416	0.502	709	1.1	5.590	A
D	412	721	1090	0.378	411	0.7	5.824	A
A	668	495	1257	0.532	666	1.2	6.686	A
B	424	880	833	0.509	422	1.1	9.584	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	710	292	1415	0.502	710	1.1	5.618	A
D	412	723	1089	0.378	412	0.7	5.848	A
A	668	497	1256	0.532	668	1.2	6.733	A
B	424	882	832	0.509	424	1.1	9.696	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	580	239	1448	0.400	581	0.7	4.577	A
D	336	593	1170	0.287	337	0.4	4.761	A
A	546	406	1312	0.416	547	0.8	5.190	A
B	346	722	924	0.375	348	0.7	6.901	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	486	200	1473	0.330	486	0.5	4.016	A
D	282	496	1230	0.229	282	0.3	4.179	A
A	457	340	1354	0.338	458	0.6	4.426	A
B	290	604	991	0.292	291	0.5	5.661	A

2036 | 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		C, D, A, B	9.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.76	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2036	Base	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	874	100.000
D		✓	358	100.000
A		✓	695	100.000
B		✓	505	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		C	D	A	B
	C	0	250	556	68
	D	206	0	34	118
	A	540	26	0	129
	B	143	183	179	0

Vehicle Mix

Heavy Vehicle %

		To			
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.72	10.77	2.8	B
D	0.40	6.65	0.7	A
A	0.59	7.44	1.6	A
B	0.65	13.42	2.0	B

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	658	290	1416	0.465	654	0.9	5.173	A
D	270	601	1165	0.231	268	0.3	4.411	A
A	523	294	1383	0.378	521	0.7	4.580	A
B	380	578	1006	0.378	378	0.7	6.275	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	786	348	1379	0.570	784	1.4	6.627	A
D	322	720	1091	0.295	321	0.5	5.142	A
A	625	352	1346	0.464	624	0.9	5.471	A
B	454	693	940	0.483	453	1.0	8.094	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	962	424	1331	0.723	957	2.8	10.443	B
D	394	879	992	0.397	393	0.7	6.597	A
A	765	430	1298	0.590	763	1.6	7.369	A
B	556	847	852	0.653	552	2.0	13.042	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	962	427	1329	0.724	962	2.8	10.769	B
D	394	884	989	0.398	394	0.7	6.651	A
A	765	432	1297	0.590	765	1.6	7.445	A
B	556	850	850	0.654	556	2.0	13.421	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	786	352	1377	0.571	791	1.5	6.821	A
D	322	727	1087	0.296	323	0.5	5.194	A
A	625	354	1345	0.464	627	1.0	5.532	A
B	454	697	938	0.484	458	1.0	8.309	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	658	293	1414	0.465	660	1.0	5.268	A
D	270	607	1161	0.232	270	0.3	4.447	A
A	523	296	1381	0.379	524	0.7	4.626	A
B	380	582	1004	0.379	382	0.7	6.381	A

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
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Filename: SHAFTON ROUNDABOUT - 2036 PLUS COMMITTED.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026
Report generation date: 4/23/2026 11:24:42 AM

»2036 | Base PLUS COMMITTED | AM
»2036 | Base PLUS COMMITTED | PM

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2036 - Base PLUS COMMITTED										
Arm C	D1	1.2	5.90	0.53	A	D2	3.4	12.11	0.76	B
Arm D		0.8	6.19	0.41	A		0.8	7.01	0.43	A
Arm A		1.3	7.23	0.55	A		1.7	7.96	0.61	A
Arm B		1.3	10.77	0.54	B		2.3	15.00	0.68	C

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

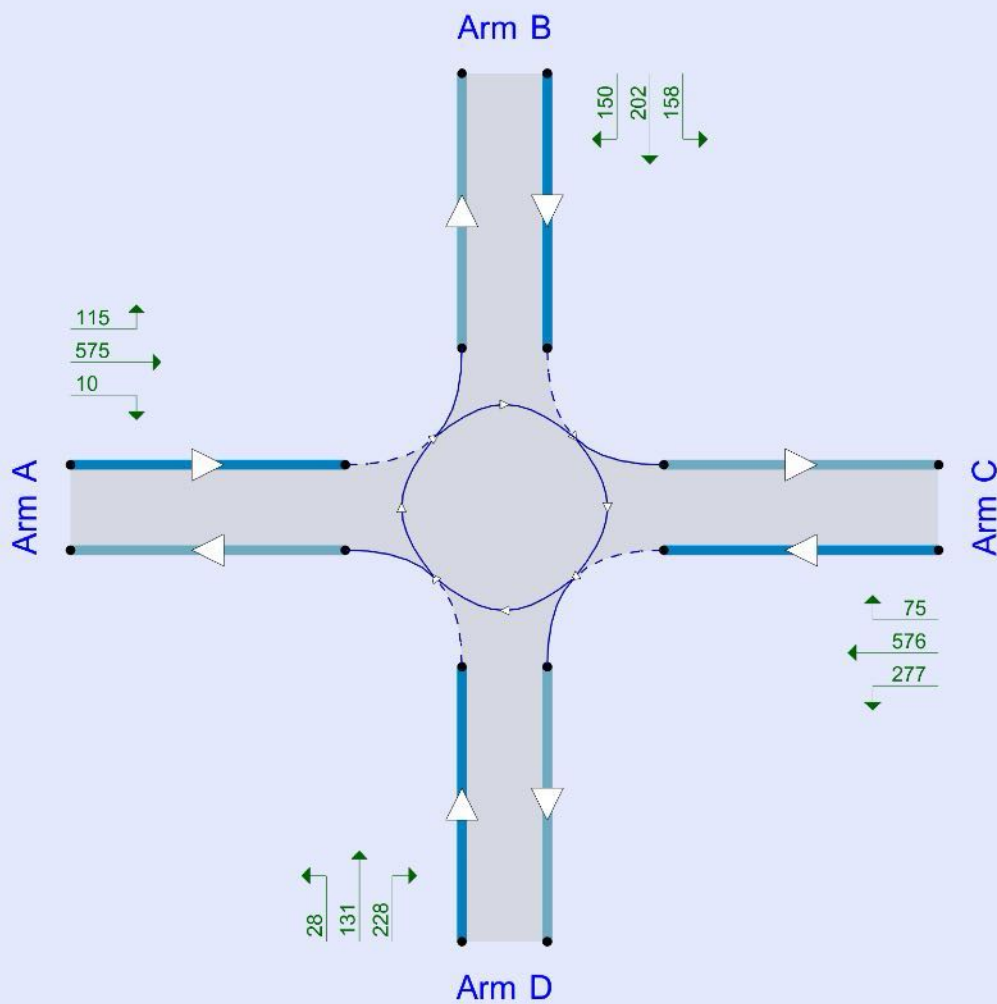
File summary

File Description

Title	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15
D2	2036	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2036 | Base PLUS COMMITTED | 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		C, D, A, B	7.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.25	A

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	684	100.000
D		✓	407	100.000
A		✓	613	100.000
B		✓	390	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		C	D	A	B
	C	0	169	420	95
	D	326	0	2	79
	A	522	9	0	82
	B	148	98	144	0

Vehicle Mix

Heavy Vehicle %

	To				
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.53	5.90	1.2	A
D	0.41	6.19	0.8	A
A	0.55	7.23	1.3	A
B	0.54	10.77	1.3	B

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	515	188	1481	0.348	513	0.6	4.080	A
D	306	494	1231	0.249	305	0.4	4.270	A
A	461	375	1332	0.346	459	0.6	4.524	A
B	294	642	969	0.303	292	0.5	5.826	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	615	225	1457	0.422	614	0.8	4.692	A
D	366	591	1171	0.313	365	0.5	4.915	A
A	551	449	1286	0.428	550	0.8	5.374	A
B	351	769	897	0.391	350	0.7	7.228	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	753	275	1426	0.528	751	1.2	5.860	A
D	448	723	1089	0.412	447	0.8	6.161	A
A	675	549	1224	0.552	673	1.3	7.162	A
B	429	941	798	0.538	427	1.2	10.609	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	753	276	1425	0.529	753	1.2	5.896	A
D	448	726	1087	0.412	448	0.8	6.192	A
A	675	550	1223	0.552	675	1.3	7.226	A
B	429	944	797	0.539	429	1.3	10.771	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	615	227	1456	0.422	617	0.8	4.728	A
D	366	594	1169	0.313	367	0.5	4.947	A
A	551	451	1285	0.429	553	0.8	5.425	A
B	351	773	894	0.392	353	0.7	7.342	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	515	190	1480	0.348	516	0.6	4.113	A
D	306	497	1229	0.249	307	0.4	4.297	A
A	461	377	1331	0.347	462	0.6	4.565	A
B	294	646	967	0.304	295	0.5	5.899	A

2036 | Base PLUS COMMITTED | 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		C, D, A, B	10.76	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.76	B

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2036	Base PLUS COMMITTED	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	928	100.000
D		✓	387	100.000
A		✓	700	100.000
B		✓	510	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		C	D	A	B
	C	0	277	576	75
	D	228	0	28	131
	A	575	10	0	115
	B	158	202	150	0

Vehicle Mix

Heavy Vehicle %

		To			
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.76	12.11	3.4	B
D	0.43	7.01	0.8	A
A	0.61	7.96	1.7	A
B	0.68	15.00	2.3	C

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	699	271	1428	0.489	694	1.0	5.367	A
D	291	599	1166	0.250	290	0.4	4.514	A
A	527	325	1363	0.387	524	0.7	4.706	A
B	384	609	988	0.388	381	0.7	6.493	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	834	324	1394	0.598	832	1.6	7.015	A
D	348	718	1092	0.319	347	0.5	5.312	A
A	629	389	1323	0.476	628	1.0	5.689	A
B	458	730	919	0.499	457	1.1	8.534	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	1022	395	1349	0.757	1015	3.3	11.624	B
D	426	876	994	0.429	425	0.8	6.938	A
A	771	476	1269	0.607	768	1.7	7.860	A
B	562	892	826	0.680	557	2.2	14.459	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	1022	398	1347	0.758	1021	3.4	12.113	B
D	426	882	991	0.430	426	0.8	7.011	A
A	771	478	1268	0.608	771	1.7	7.957	A
B	562	895	825	0.681	561	2.3	15.003	C

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	834	329	1391	0.600	841	1.7	7.280	A
D	348	726	1087	0.320	349	0.5	5.376	A
A	629	392	1322	0.476	632	1.0	5.766	A
B	458	734	917	0.500	463	1.1	8.813	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	699	274	1426	0.490	701	1.1	5.477	A
D	291	605	1162	0.251	292	0.4	4.556	A
A	527	327	1362	0.387	528	0.7	4.760	A
B	384	613	986	0.389	386	0.7	6.617	A

Junctions 11									
ARCADY 11 - Roundabout Module									
Version: 11.0.0.2177 © Copyright TRL Software Limited, 2024									
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution									

Filename: SHAFTON ROUNDABOUT - 2036 PLUS COMMITTED PLUS DEVELOPMENT.j11
Path: C:\Users\leighogden\Desktop\CUDWORTH PARKWAY ARCADY - 2026
Report generation date: 4/23/2026 11:14:22 AM

»2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM
»2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2036 - Base PLUS COMMITTED PLUS DEVELOPMENT										
Arm C	D1	1.4	6.33	0.55	A	D2	4.0	14.14	0.79	B
Arm D		0.8	6.62	0.43	A		0.9	7.56	0.45	A
Arm A		1.4	7.54	0.57	A		1.9	8.73	0.64	A
Arm B		1.5	12.00	0.58	B		2.9	17.91	0.73	C

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.

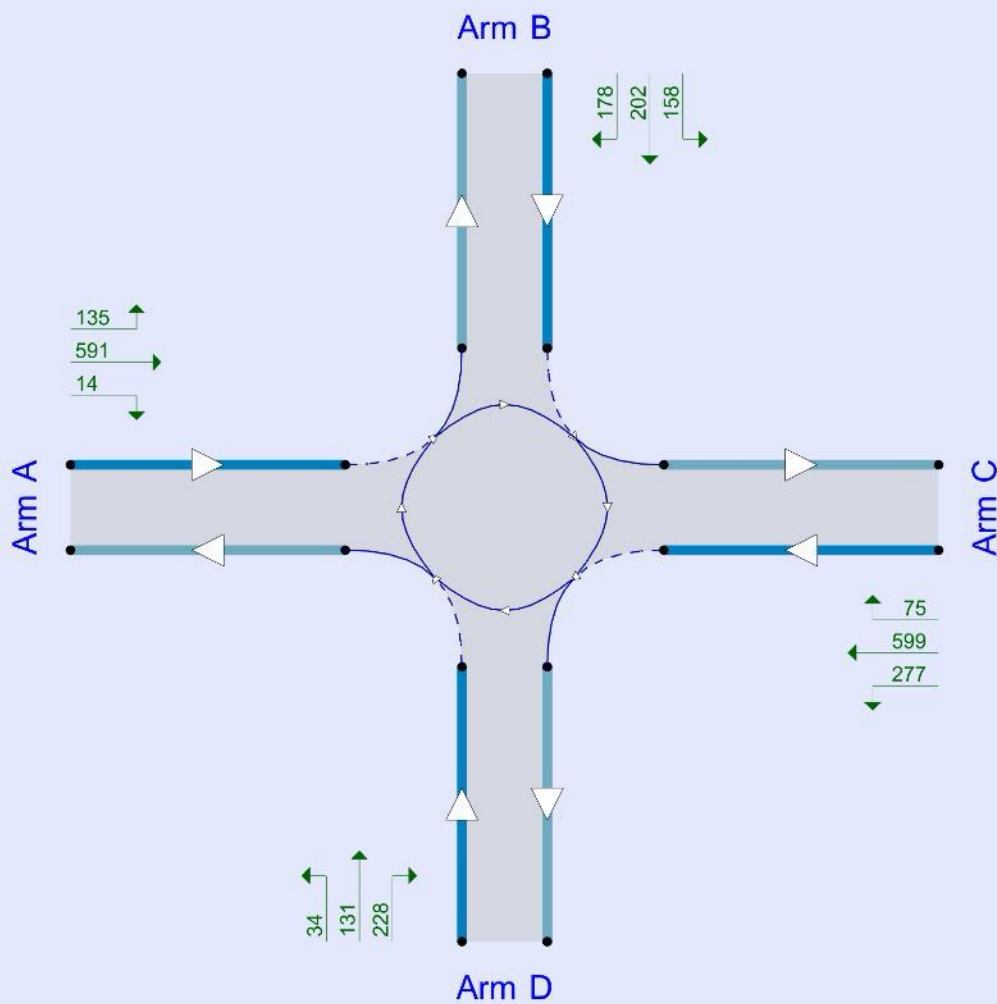
File summary

File Description

Title	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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



Flows show original traffic demand (PCU/hr)
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15
D2	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2036 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	7.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.83	A

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	707	100.000
D		✓	413	100.000
A		✓	634	100.000
B		✓	418	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		C	D	A	B
From	C	0	169	443	95
	D	326	0	8	79
	A	531	11	0	92
	B	148	98	172	0

Vehicle Mix

Heavy Vehicle %

	To				
		C	D	A	B
From	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.55	6.33	1.4	A
D	0.43	6.62	0.8	A
A	0.57	7.54	1.4	A
B	0.58	12.00	1.5	B

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	532	210	1467	0.363	530	0.6	4.216	A
D	311	532	1207	0.258	309	0.4	4.402	A
A	477	375	1332	0.358	475	0.6	4.606	A
B	315	650	965	0.326	313	0.5	6.052	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	636	252	1440	0.441	635	0.9	4.910	A
D	371	637	1142	0.325	371	0.5	5.129	A
A	570	449	1286	0.443	569	0.9	5.513	A
B	376	779	891	0.422	375	0.8	7.653	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	778	308	1405	0.554	776	1.3	6.283	A
D	455	779	1054	0.431	454	0.8	6.578	A
A	698	549	1224	0.570	696	1.4	7.467	A
B	460	953	791	0.581	457	1.5	11.758	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	778	309	1404	0.555	778	1.4	6.331	A
D	455	782	1053	0.432	455	0.8	6.621	A
A	698	550	1223	0.571	698	1.4	7.542	A
B	460	956	790	0.583	460	1.5	11.998	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	636	254	1439	0.442	637	0.9	4.956	A
D	371	641	1140	0.326	372	0.5	5.169	A
A	570	451	1285	0.444	572	0.9	5.576	A
B	376	783	889	0.423	379	0.8	7.804	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	532	212	1465	0.363	533	0.6	4.253	A
D	311	536	1205	0.258	312	0.4	4.434	A
A	477	377	1331	0.359	478	0.6	4.651	A
B	315	655	962	0.327	316	0.5	6.136	A

2036 | Base PLUS COMMITTED PLUS DEVELOPMENT | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2036 Base PLUS COMMITTED PLUS DEVELOPMENT PM	Demand Set 2: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	12.40	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.40	B

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2036	Base PLUS COMMITTED PLUS DEVELOPMENT	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		✓	951	100.000
D		✓	393	100.000
A		✓	740	100.000
B		✓	538	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		C	D	A	B
From	C	0	277	599	75
	D	228	0	34	131
	A	591	14	0	135
	B	158	202	178	0

Vehicle Mix

Heavy Vehicle %

	To				
From		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
C	0.79	14.14	4.0	B
D	0.45	7.56	0.9	A
A	0.64	8.73	1.9	A
B	0.73	17.91	2.9	C

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	716	294	1413	0.507	712	1.1	5.610	A
D	296	637	1142	0.259	294	0.4	4.662	A
A	557	325	1363	0.409	554	0.8	4.877	A
B	405	624	980	0.413	402	0.8	6.817	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	855	353	1376	0.621	852	1.8	7.522	A
D	353	763	1064	0.332	353	0.5	5.562	A
A	665	389	1323	0.503	664	1.1	5.995	A
B	484	747	909	0.532	482	1.2	9.226	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	1047	429	1328	0.789	1039	3.8	13.336	B
D	433	930	961	0.450	431	0.9	7.460	A
A	815	476	1269	0.642	811	1.9	8.588	A
B	592	914	814	0.728	586	2.8	16.952	C

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	1047	434	1325	0.790	1046	4.0	14.139	B
D	433	938	956	0.453	433	0.9	7.563	A
A	815	478	1268	0.643	815	1.9	8.728	A
B	592	917	812	0.730	592	2.9	17.911	C

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	855	359	1372	0.623	863	1.9	7.905	A
D	353	774	1057	0.334	355	0.6	5.647	A
A	665	392	1321	0.503	669	1.1	6.094	A
B	484	752	906	0.534	490	1.3	9.650	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
C	716	298	1411	0.507	719	1.1	5.744	A
D	296	644	1138	0.260	297	0.4	4.709	A
A	557	328	1362	0.409	559	0.8	4.940	A
B	405	629	977	0.415	407	0.8	6.972	A

Appendix G

ARCADY Output (Adjusted to mean max
queue lengths as surveyed)

Junctions 11			
ARCADY 11 - Roundabout Module			
Version: 11.0.0.2177			
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Filename: SHAFTON ROUNDABOUT - 2026 PLUS COMMITTED PLUS DEV PM Adjusted.j11

Path: \\Mac\Home\Documents\PARAGON HIGHWAYS\Cudworth Parkway\CUDWORTH PARKWAY ARCADY - 2026\Shafton Roundabout

Report generation date: 4/28/2026 3:48:48 PM

«2026 | PLUS COMM PLUS DEV | PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - PLUS COMM PLUS DEV				
Arm C	21.2	80.33	0.99	F
Arm D	4.0	38.83	0.80	E
Arm A	4.8	23.80	0.83	C
Arm B	4.2	28.68	0.81	D

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	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75	✓					0.85	36.00	20.00		

Analysis Set Details

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

2026 | PLUS COMM PLUS DEV | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	47.34	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	47.34	E

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct		-362
D	Direct	Queue Length	-510
A	Direct	Queue Length	-372
B	Direct	Queue Length	-162

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026	PLUS COMM PLUS DEV	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	874	100.000
D		ONE HOUR	✓	358	100.000
A		ONE HOUR	✓	695	100.000
B		ONE HOUR	✓	505	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		C	D	A	B
From	C	0	250	556	68
	D	206	0	34	118
	A	540	26	0	129
	B	143	183	179	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		C	D	A	B
From	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
C	0.99	80.33	21.2	77.5	F	802	1203
D	0.80	38.83	4.0	21.5	E	329	493
A	0.83	23.80	4.8	24.2	C	638	957
B	0.81	28.68	4.2	21.2	D	463	695

Main Results for each time segment

00:00 - 00:15

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
C	658	164	289	1054	0.624	651	663	0.0	1.8	9.654	A
D	270	67	598	656	0.411	267	342	0.0	0.8	10.083	B
A	523	131	292	1012	0.517	519	573	0.0	1.2	7.958	A
B	380	95	576	845	0.450	377	235	0.0	0.9	8.386	A

00:15 - 00:30

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
C	786	196	347	1018	0.772	779	795	1.8	3.5	16.121	C
D	322	80	716	583	0.552	320	410	0.8	1.3	14.892	B
A	625	156	350	976	0.640	622	686	1.2	1.9	11.095	B
B	454	113	690	780	0.582	452	281	0.9	1.5	11.974	B

00:30 - 00:45

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
C	962	241	420	972	0.990	916	963	3.5	15.1	49.600	E
D	394	99	848	502	0.785	386	488	1.3	3.5	31.923	D
A	765	191	420	932	0.821	755	813	1.9	4.5	21.214	C
B	556	139	837	696	0.799	547	338	1.5	3.8	25.055	D

00:45 - 01:00

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
C	962	241	426	968	0.994	938	976	15.1	21.2	80.335	F
D	394	99	866	490	0.804	392	498	3.5	4.0	38.827	E
A	765	191	428	927	0.825	764	830	4.5	4.8	23.800	C
B	556	139	848	690	0.806	555	344	3.8	4.2	28.681	D

01:00 - 01:15

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
C	786	196	357	1012	0.777	854	816	21.2	4.2	32.641	D
D	322	80	774	548	0.588	331	436	4.0	1.6	19.028	C
A	625	156	366	966	0.647	636	739	4.8	2.1	12.378	B
B	454	113	708	770	0.590	464	294	4.2	1.6	13.377	B

01:15 - 01:30

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
C	658	164	294	1051	0.626	667	675	4.2	1.9	10.550	B
D	270	67	612	648	0.416	273	349	1.6	0.8	10.656	B
A	523	131	299	1007	0.519	527	586	2.1	1.2	8.297	A
B	380	95	586	840	0.453	383	240	1.6	0.9	8.726	A

Queue Variation Results for each time segment

00:00 - 00:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.77	0.61	1.10	2.42	2.97			N/A	N/A
D	0.75	0.61	1.10	1.54	1.60			N/A	N/A
A	1.16	0.61	1.10	1.54	1.60			N/A	N/A
B	0.88	0.61	1.10	1.54	1.60			N/A	N/A

00:15 - 00:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	3.46	0.07	1.33	9.20	13.75			N/A	N/A
D	1.31	0.09	1.05	2.47	3.26			N/A	N/A
A	1.90	0.07	1.04	4.47	6.47			N/A	N/A
B	1.49	0.07	1.00	3.16	4.39			N/A	N/A

00:30 - 00:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	15.07	0.34	8.30	37.20	50.56			N/A	N/A
D	3.46	0.04	0.42	9.04	18.33			N/A	N/A
A	4.48	0.04	0.40	10.64	24.20			N/A	N/A
B	3.85	0.04	0.40	9.40	20.62			N/A	N/A

00:45 - 01:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	21.17	0.26	10.04	55.36	77.55			N/A	N/A
D	3.99	0.04	0.37	8.27	21.50			N/A	N/A
A	4.82	0.03	0.34	5.55	22.71			N/A	N/A
B	4.20	0.03	0.35	6.28	21.17			N/A	N/A

01:00 - 01:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	4.22	0.05	0.47	11.63	21.67			N/A	N/A
D	1.64	0.05	0.54	4.14	6.39			N/A	N/A
A	2.09	0.05	0.51	5.59	9.17			N/A	N/A
B	1.64	0.05	0.49	4.24	6.86			N/A	N/A

01:15 - 01:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.89	0.03	0.33	2.10	8.79			N/A	N/A
D	0.80	0.04	0.35	1.70	3.83			N/A	N/A
A	1.21	0.04	0.37	2.85	6.02			N/A	N/A
B	0.93	0.04	0.36	2.05	4.45			N/A	N/A

Junctions 11			
ARCADY 11 - Roundabout Module			
Version: 11.0.0.2177			
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Filename: SHAFTON ROUNDABOUT - 2026 PLUS COMMITTED PLUS DEV AM Adjusted.j11

Path: \\Mac\Home\Documents\PARAGON HIGHWAYS\Cudworth Parkway\CUDWORTH PARKWAY ARCADY - 2026\Shafton Roundabout

Report generation date: 4/28/2026 3:34:13 PM

«2026 | PLUS COMM PLUS DEV | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - PLUS COMM PLUS DEV				
Arm C	10.9	59.27	0.94	F
Arm D	5.2	48.91	0.85	E
Arm A	19.2	104.38	1.00	F
Arm B	12.7	111.09	0.99	F

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	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75	✓					0.85	36.00	20.00		

Analysis Set Details

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

2026 | PLUS COMM PLUS DEV | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	80.88	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	80.88	F

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct		-665
D	Direct	Queue Length	-613
A	Direct	Queue Length	-594
B	Direct	Queue Length	-415

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	PLUS COMM PLUS DEV	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	645	100.000
D		ONE HOUR	✓	374	100.000
A		ONE HOUR	✓	607	100.000
B		ONE HOUR	✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		C	D	A	B
From	C	0	152	407	86
	D	294	0	9	71
	A	494	13	0	100
	B	133	88	164	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		C	D	A	B
From	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
C	0.94	59.27	10.9	53.5	F	592	888
D	0.85	48.91	5.2	28.1	E	343	515
A	1.00	104.38	19.2	65.1	F	557	835
B	0.99	111.09	12.7	47.4	F	353	530

Main Results for each time segment

00:00 - 00:15

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
C	486	121	197	810	0.599	479	684	0.0	1.6	11.753	B
D	282	70	488	622	0.453	278	188	0.0	0.9	11.412	B
A	457	114	335	763	0.599	451	431	0.0	1.6	12.451	B
B	290	72	595	581	0.498	286	191	0.0	1.1	13.205	B

00:15 - 00:30

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
C	580	145	235	786	0.738	575	819	1.6	2.9	18.314	C
D	336	84	585	562	0.599	333	225	0.9	1.6	17.153	C
A	546	136	402	721	0.757	539	516	1.6	3.1	21.088	C
B	346	87	713	514	0.673	342	229	1.1	2.1	22.472	C

00:30 - 00:45

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
C	710	178	274	761	0.933	686	964	2.9	8.9	43.050	E
D	412	103	694	494	0.834	400	266	1.6	4.4	38.428	E
A	668	167	482	671	0.996	628	612	3.1	13.1	62.973	F
B	424	106	840	441	0.961	398	271	2.1	8.6	67.917	F

00:45 - 01:00

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
C	710	178	281	757	0.938	702	986	8.9	10.9	59.266	F
D	412	103	710	484	0.851	409	272	4.4	5.2	48.913	E
A	668	167	492	665	1.005	644	626	13.1	19.2	104.383	F
B	424	106	859	430	0.985	408	277	8.6	12.7	111.095	F

01:00 - 01:15

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
C	580	145	264	767	0.756	609	900	10.9	3.7	28.360	D
D	336	84	629	534	0.629	349	244	5.2	2.0	22.661	C
A	546	136	422	709	0.770	606	556	19.2	4.2	50.007	F
B	346	87	780	475	0.728	383	247	12.7	3.4	53.028	F

01:15 - 01:30

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
C	486	121	205	805	0.604	494	708	3.7	1.7	13.038	B
D	282	70	504	611	0.461	286	195	2.0	1.0	12.300	B
A	457	114	345	757	0.604	467	445	4.2	1.7	14.083	B
B	290	72	614	570	0.508	299	197	3.4	1.2	15.014	C

Queue Variation Results for each time segment

00:00 - 00:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.59	0.64	1.49	1.97	2.10			N/A	N/A
D	0.89	0.61	1.10	1.54	1.60			N/A	N/A
A	1.59	0.61	1.47	2.06	2.30			N/A	N/A
B	1.06	0.59	1.11	1.57	1.63			N/A	N/A

00:15 - 00:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	2.89	0.09	1.45	7.17	10.27			N/A	N/A
D	1.57	0.08	1.13	3.22	4.40			N/A	N/A
A	3.13	0.08	1.48	7.91	11.44			N/A	N/A
B	2.11	0.08	1.20	5.01	7.12			N/A	N/A

00:30 - 00:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	8.86	0.10	2.33	24.74	37.15			N/A	N/A
D	4.39	0.05	0.51	12.43	21.83			N/A	N/A
A	13.14	0.41	7.77	31.27	41.81			N/A	N/A
B	8.63	0.19	4.15	21.70	30.06			N/A	N/A

00:45 - 01:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	10.95	0.07	1.45	32.05	53.53			N/A	N/A
D	5.21	0.04	0.42	13.17	28.15			N/A	N/A
A	19.24	0.39	10.62	47.81	65.07			N/A	N/A
B	12.70	0.18	5.48	33.46	47.38			N/A	N/A

01:00 - 01:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	3.72	0.05	0.50	10.44	18.21			N/A	N/A
D	1.97	0.05	0.50	5.27	8.61			N/A	N/A
A	4.21	0.05	0.49	11.83	21.18			N/A	N/A
B	3.36	0.06	0.59	9.36	15.29			N/A	N/A

01:15 - 01:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.73	0.03	0.34	3.03	8.88			N/A	N/A
D	0.96	0.03	0.34	1.86	4.77			N/A	N/A
A	1.74	0.03	0.33	1.88	8.00			N/A	N/A
B	1.17	0.03	0.32	1.52	5.09			N/A	N/A

Junctions 11				
ARCADY 11 - Roundabout Module				
Version: 11.0.0.2177				
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Report generation date: 4/28/2026 3:31:12 PM

«2026 | PLUS COMM | PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - PLUS COMM				
Arm C	15.9	63.26	0.97	F
Arm D	3.4	33.25	0.77	D
Arm A	4.5	22.37	0.81	C
Arm B	3.6	25.07	0.78	D

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	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75	✓					0.85	36.00	20.00		

Analysis Set Details

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

2026 | PLUS COMM | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	39.28	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	39.28	E

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRAC T ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRAC T 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct		-362
D	Direct	Queue Length	-510
A	Direct	Queue Length	-372
B	Direct	Queue Length	-162

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026	PLUS COMM	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	861	100.000
D		ONE HOUR	✓	355	100.000
A		ONE HOUR	✓	684	100.000
B		ONE HOUR	✓	489	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		C	D	A	B
	C	0	250	543	68
	D	206	0	31	118
	A	535	25	0	124
	B	143	183	163	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
C	0.97	63.26	15.9	69.8	F	790	1185
D	0.77	33.25	3.4	17.7	D	326	489
A	0.81	22.37	4.5	22.7	C	628	941
B	0.78	25.07	3.6	17.9	D	449	673

Main Results for each time segment

00:00 - 00:15

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
C	648	162	277	1062	0.610	641	659	0.0	1.7	9.269	A
D	267	67	577	670	0.399	264	341	0.0	0.7	9.708	A
A	515	129	292	1012	0.509	510	549	0.0	1.1	7.832	A
B	368	92	571	848	0.434	365	231	0.0	0.8	8.143	A

00:15 - 00:30

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
C	774	194	332	1027	0.753	768	791	1.7	3.2	14.927	B
D	319	80	691	599	0.533	317	409	0.7	1.2	13.953	B
A	615	154	350	976	0.630	612	658	1.1	1.8	10.811	B
B	440	110	685	783	0.562	437	277	0.8	1.4	11.394	B

00:30 - 00:45

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
C	948	237	403	983	0.965	912	959	3.2	12.2	42.447	E
D	391	98	824	517	0.757	384	490	1.2	3.0	28.331	D
A	753	188	422	931	0.809	744	785	1.8	4.2	20.199	C
B	538	135	831	699	0.770	531	334	1.4	3.3	22.522	C

00:45 - 01:00

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
C	948	237	408	979	0.968	933	971	12.2	15.9	63.264	F
D	391	98	841	506	0.773	389	500	3.0	3.4	33.249	D
A	753	188	429	926	0.813	752	802	4.2	4.5	22.367	C
B	538	135	842	693	0.777	537	339	3.3	3.6	25.073	D

01:00 - 01:15

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
C	774	194	340	1022	0.757	823	810	15.9	3.7	23.802	C
D	319	80	733	573	0.557	327	429	3.4	1.4	16.599	C
A	615	154	363	967	0.636	625	697	4.5	2.0	11.881	B
B	440	110	701	773	0.568	448	287	3.6	1.5	12.460	B

01:15 - 01:30

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
C	648	162	281	1060	0.612	656	670	3.7	1.8	9.988	A
D	267	67	589	662	0.404	270	348	1.4	0.8	10.169	B
A	515	129	298	1008	0.511	518	561	2.0	1.2	8.140	A
B	368	92	581	842	0.437	371	235	1.5	0.9	8.437	A

Queue Variation Results for each time segment

00:00 - 00:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.68	0.63	1.57	2.11	2.52			N/A	N/A
D	0.72	0.61	1.10	1.54	1.60			N/A	N/A
A	1.12	0.61	1.10	1.54	1.60			N/A	N/A
B	0.83	0.61	1.10	1.54	1.60			N/A	N/A

00:15 - 00:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	3.16	0.07	1.22	8.36	12.54			N/A	N/A
D	1.22	0.09	1.03	2.12	2.91			N/A	N/A
A	1.82	0.07	1.04	4.24	6.12			N/A	N/A
B	1.37	0.08	1.01	2.80	3.83			N/A	N/A

00:30 - 00:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	12.25	0.16	4.93	32.71	46.81			N/A	N/A
D	3.03	0.04	0.39	7.10	16.19			N/A	N/A
A	4.19	0.04	0.39	9.38	22.69			N/A	N/A
B	3.33	0.04	0.37	7.11	17.92			N/A	N/A

00:45 - 01:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	15.91	0.11	3.88	45.64	69.77			N/A	N/A
D	3.41	0.04	0.35	5.76	17.69			N/A	N/A
A	4.47	0.03	0.33	4.47	20.05			N/A	N/A
B	3.58	0.03	0.33	3.95	16.66			N/A	N/A

01:00 - 01:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	3.70	0.05	0.45	10.09	18.93			N/A	N/A
D	1.44	0.05	0.54	3.49	5.34			N/A	N/A
A	1.98	0.05	0.52	5.28	8.52			N/A	N/A
B	1.49	0.05	0.52	3.75	5.84			N/A	N/A

01:15 - 01:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.78	0.03	0.33	2.31	8.60			N/A	N/A
D	0.76	0.04	0.36	1.70	3.41			N/A	N/A
A	1.17	0.04	0.38	2.81	5.69			N/A	N/A
B	0.87	0.04	0.37	2.00	4.00			N/A	N/A

Junctions 11				
ARCADY 11 - Roundabout Module				
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Filename: SHAFTON ROUNDABOUT - 2026 PLUS COMMitted AM Adjusted.j11

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Report generation date: 4/28/2026 3:02:37 PM

«2026 | PLUS COMM | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - PLUS COMM				
Arm C	9.8	53.69	0.93	F
Arm D	4.9	45.70	0.84	E
Arm A	11.7	70.61	0.95	F
Arm B	10.6	96.01	0.96	F

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	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75	✓					0.85	36.00	20.00		

Analysis Set Details

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

2026 | PLUS COMM | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	65.27	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	65.27	F

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct		-665
D	Direct	Queue Length	-613
A	Direct	Queue Length	-594
B	Direct	Queue Length	-415

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	PLUS COMM	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	640	100.000
D		ONE HOUR	✓	373	100.000
A		ONE HOUR	✓	574	100.000
B		ONE HOUR	✓	379	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		C	D	A	B
	C	0	152	402	86
	D	294	0	8	71
	A	480	10	0	84
	B	133	88	158	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
C	0.93	53.69	9.8	50.1	F	587	881
D	0.84	45.70	4.9	26.3	E	342	513
A	0.95	70.61	11.7	53.3	F	527	790
B	0.96	96.01	10.6	44.1	F	348	522

Main Results for each time segment

00:00 - 00:15

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
C	482	120	190	814	0.592	476	674	0.0	1.5	11.494	B
D	281	70	480	627	0.448	277	186	0.0	0.9	11.230	B
A	432	108	335	763	0.567	427	422	0.0	1.4	11.598	B
B	285	71	583	588	0.485	281	179	0.0	1.0	12.734	B

00:15 - 00:30

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
C	575	144	228	791	0.728	571	808	1.5	2.8	17.605	C
D	335	84	575	567	0.591	333	223	0.9	1.5	16.685	C
A	516	129	402	721	0.716	511	506	1.4	2.6	18.449	C
B	341	85	699	522	0.653	337	215	1.0	1.9	20.975	C

00:30 - 00:45

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
C	705	176	267	766	0.920	683	961	2.8	8.1	40.178	E
D	411	103	686	499	0.823	400	264	1.5	4.2	36.600	E
A	632	158	483	671	0.942	606	602	2.6	9.1	48.593	E
B	417	104	833	445	0.937	395	257	1.9	7.6	61.484	F

00:45 - 01:00

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
C	705	176	274	761	0.926	698	983	8.1	9.8	53.689	F
D	411	103	701	490	0.839	408	271	4.2	4.9	45.699	E
A	632	158	493	665	0.951	621	616	9.1	11.7	70.607	F
B	417	104	852	434	0.961	405	262	7.6	10.6	96.007	F

01:00 - 01:15

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
C	575	144	251	775	0.742	601	865	9.8	3.4	25.319	D
D	335	84	614	544	0.617	347	239	4.9	1.9	21.234	C
A	516	129	421	710	0.727	550	540	11.7	3.2	28.954	D
B	341	85	743	496	0.686	373	227	10.6	2.6	38.123	E

01:15 - 01:30

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
C	482	120	197	810	0.595	489	694	3.4	1.7	12.587	B
D	281	70	494	618	0.455	285	191	1.9	0.9	12.010	B
A	432	108	344	757	0.571	439	435	3.2	1.5	12.683	B
B	285	71	599	579	0.493	291	184	2.6	1.1	14.040	B

Queue Variation Results for each time segment

00:00 - 00:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.54	0.64	1.42	1.91	2.07			N/A	N/A
D	0.87	0.61	1.10	1.54	1.60			N/A	N/A
A	1.40	0.62	1.27	1.76	1.98			N/A	N/A
B	1.01	0.60	1.10	1.54	1.60			N/A	N/A

00:15 - 00:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	2.75	0.08	1.41	6.79	9.73			N/A	N/A
D	1.52	0.09	1.12	3.10	4.23			N/A	N/A
A	2.59	0.08	1.31	6.41	9.27			N/A	N/A
B	1.94	0.08	1.14	4.49	6.41			N/A	N/A

00:30 - 00:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	8.12	0.08	1.61	23.07	35.65			N/A	N/A
D	4.16	0.05	0.48	11.64	21.07			N/A	N/A
A	9.06	0.12	3.08	24.56	35.80			N/A	N/A
B	7.57	0.13	2.92	19.86	28.39			N/A	N/A

00:45 - 01:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	9.81	0.06	0.78	28.42	50.15			N/A	N/A
D	4.86	0.04	0.40	11.67	26.32			N/A	N/A
A	11.71	0.08	2.06	33.91	53.30			N/A	N/A
B	10.64	0.11	3.12	29.61	44.08			N/A	N/A

01:00 - 01:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	3.43	0.05	0.49	9.57	16.84			N/A	N/A
D	1.86	0.05	0.50	4.95	8.09			N/A	N/A
A	3.19	0.05	0.46	8.75	16.01			N/A	N/A
B	2.64	0.05	0.47	7.25	12.68			N/A	N/A

01:15 - 01:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.67	0.03	0.35	3.03	8.59			N/A	N/A
D	0.94	0.03	0.35	1.87	4.61			N/A	N/A
A	1.51	0.03	0.33	2.09	7.38			N/A	N/A
B	1.10	0.03	0.32	1.58	4.91			N/A	N/A

Junctions 11				
ARCADY 11 - Roundabout Module				
Version: 11.0.0.2177				
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Report generation date: 4/28/2026 2:55:48 PM

«2026 | Base | PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - Base				
Arm C	9.4	39.18	0.91	E
Arm D	2.6	25.69	0.72	D
Arm A	3.2	17.11	0.75	C
Arm B	2.6	19.15	0.71	C

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	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75	✓					0.85	36.00	20.00		

Analysis Set Details

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

2026 | Base | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	26.95	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.95	D

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct		-362
D	Direct	Queue Length	-510
A	Direct	Queue Length	-372
B	Direct	Queue Length	-162

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026	Base	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	838	100.000
D		ONE HOUR	✓	349	100.000
A		ONE HOUR	✓	632	100.000
B		ONE HOUR	✓	461	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		C	D	A	B
	C	0	250	520	68
	D	206	0	25	118
	A	519	9	0	104
	B	143	183	135	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
C	0.91	39.18	9.4	50.9	E	769	1153
D	0.72	25.69	2.6	12.5	D	320	480
A	0.75	17.11	3.2	15.0	C	580	870
B	0.71	19.15	2.6	11.8	C	423	635

Main Results for each time segment

00:00 - 00:15

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
C	631	158	244	1083	0.583	625	648	0.0	1.5	8.536	A
D	263	66	539	693	0.379	260	330	0.0	0.7	9.096	A
A	476	119	292	1012	0.470	472	507	0.0	1.0	7.289	A
B	347	87	548	861	0.403	344	216	0.0	0.7	7.614	A

00:15 - 00:30

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
C	753	188	293	1052	0.716	749	777	1.5	2.6	12.852	B
D	314	78	646	627	0.501	312	395	0.7	1.1	12.523	B
A	568	142	350	975	0.583	566	608	1.0	1.5	9.623	A
B	414	104	657	799	0.519	413	259	0.7	1.2	10.210	B

00:30 - 00:45

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
C	923	231	356	1012	0.912	901	946	2.6	8.1	30.787	D
D	384	96	779	544	0.706	379	478	1.1	2.4	23.191	C
A	696	174	425	929	0.749	690	733	1.5	3.1	16.117	C
B	508	127	800	717	0.708	502	315	1.2	2.5	17.984	C

00:45 - 01:00

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
C	923	231	360	1010	0.914	918	955	8.1	9.4	39.177	E
D	384	96	792	536	0.717	383	485	2.4	2.6	25.695	D
A	696	174	430	926	0.752	695	745	3.1	3.2	17.108	C
B	508	127	807	713	0.712	507	319	2.5	2.6	19.147	C

01:00 - 01:15

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
C	753	188	298	1049	0.718	779	791	9.4	2.9	15.910	C
D	314	78	670	612	0.513	319	407	2.6	1.2	13.783	B
A	568	142	360	969	0.586	575	629	3.2	1.6	10.185	B
B	414	104	669	792	0.523	420	266	2.6	1.2	10.786	B

01:15 - 01:30

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
C	631	158	248	1081	0.584	636	657	2.9	1.6	9.016	A
D	263	66	549	687	0.382	265	335	1.2	0.7	9.423	A
A	476	119	297	1008	0.472	478	516	1.6	1.0	7.505	A
B	347	87	556	857	0.405	349	220	1.2	0.8	7.825	A

Queue Variation Results for each time segment

00:00 - 00:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.50	0.63	1.37	1.88	2.05			N/A	N/A
D	0.66	0.61	1.10	1.54	1.60			N/A	N/A
A	0.96	0.61	1.10	1.54	1.60			N/A	N/A
B	0.73	0.61	1.10	1.54	1.60			N/A	N/A

00:15 - 00:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	2.65	0.07	1.08	6.88	10.31			N/A	N/A
D	1.07	0.10	1.00	1.76	2.12			N/A	N/A
A	1.50	0.08	1.04	3.14	4.33			N/A	N/A
B	1.16	0.09	1.01	2.02	2.69			N/A	N/A

00:30 - 00:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	8.15	0.07	1.33	23.66	38.83			N/A	N/A
D	2.43	0.03	0.35	4.09	12.53			N/A	N/A
A	3.07	0.03	0.34	4.11	14.99			N/A	N/A
B	2.50	0.03	0.33	3.00	11.84			N/A	N/A

00:45 - 01:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	9.38	0.05	0.47	25.34	50.94			N/A	N/A
D	2.63	0.03	0.33	2.77	12.07			N/A	N/A
A	3.20	0.03	0.31	3.20	10.36			N/A	N/A
B	2.61	0.03	0.32	2.61	9.76			N/A	N/A

01:00 - 01:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	2.95	0.05	0.46	8.08	14.77			N/A	N/A
D	1.19	0.06	0.60	2.68	3.93			N/A	N/A
A	1.60	0.06	0.68	3.92	5.86			N/A	N/A
B	1.24	0.06	0.69	2.76	4.00			N/A	N/A

01:15 - 01:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.58	0.03	0.34	2.81	8.10			N/A	N/A
D	0.69	0.04	0.39	1.57	2.77			N/A	N/A
A	1.00	0.04	0.41	2.43	4.24			N/A	N/A
B	0.76	0.04	0.41	1.76	2.94			N/A	N/A

Junctions 11				
ARCADY 11 - Roundabout Module				
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Report generation date: 4/28/2026 2:27:01 PM

«2026 | Base | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - Base				
Arm C	6.5	36.64	0.87	E
Arm D	3.5	32.92	0.78	D
Arm A	8.9	56.42	0.92	F
Arm B	6.2	62.19	0.88	F

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	Shafton Roundabout
Location	
Site number	
Date	4/21/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75	✓					0.85	36.00	20.00		

Analysis Set Details

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

2026 | Base | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		C, D, A, B	46.46	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	46.46	E

Arms

Arms

Arm	Name	Description	No give-way line
C	COLLIER ROAD		
D	PONTEFRACT ROAD (SOUTH)		
A	CUDWORTH PARKWAY		
B	PONTEFRACT 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
C	3.72	7.69	9.4	40.0	25.0	44.0		
D	3.92	7.21	6.9	30.0	25.0	43.0		
A	3.74	7.15	10.0	35.0	25.0	47.0		
B	3.28	5.22	14.1	19.5	25.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.634	1600
D	0.619	1537
A	0.622	1565
B	0.573	1337

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct		-665
D	Direct	Queue Length	-613
A	Direct	Queue Length	-594
B	Direct	Queue Length	-415

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	Base	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	617	100.000
D		ONE HOUR	✓	367	100.000
A		ONE HOUR	✓	553	100.000
B		ONE HOUR	✓	351	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		C	D	A	B
	C	0	152	379	86
	D	294	0	2	71
	A	471	8	0	74
	B	133	88	130	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		C	D	A	B
	C	10	10	10	10
	D	10	10	10	10
	A	10	10	10	10
	B	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
C	0.87	36.64	6.5	35.5	E	566	849
D	0.78	32.92	3.5	17.9	D	337	505
A	0.92	56.42	8.9	45.5	F	507	761
B	0.88	62.19	6.2	32.0	F	322	483

Main Results for each time segment

00:00 - 00:15

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
C	465	116	168	828	0.561	459	668	0.0	1.4	10.574	B
D	276	69	443	650	0.425	273	184	0.0	0.8	10.429	B
A	416	104	336	763	0.546	411	380	0.0	1.3	11.115	B
B	264	66	575	593	0.446	261	172	0.0	0.9	11.806	B

00:15 - 00:30

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
C	555	139	201	807	0.687	551	801	1.4	2.3	15.227	C
D	330	82	531	595	0.555	328	221	0.8	1.3	14.705	B
A	497	124	403	721	0.690	493	456	1.3	2.3	17.082	C
B	316	79	690	527	0.599	313	206	0.9	1.6	18.226	C

00:30 - 00:45

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
C	679	170	240	783	0.868	665	960	2.3	5.8	30.604	D
D	404	101	640	528	0.766	397	266	1.3	3.2	28.704	D
A	609	152	487	668	0.911	589	549	2.3	7.3	41.976	E
B	386	97	828	448	0.862	373	248	1.6	5.0	45.977	E

00:45 - 01:00

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
C	679	170	246	779	0.872	677	981	5.8	6.5	36.644	E
D	404	101	651	520	0.776	403	271	3.2	3.5	32.919	D
A	609	152	495	663	0.918	603	559	7.3	8.9	56.424	F
B	386	97	845	438	0.882	382	253	5.0	6.2	62.194	F

01:00 - 01:15

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
C	555	139	214	799	0.694	570	841	6.5	2.6	18.309	C
D	330	82	553	581	0.567	338	231	3.5	1.5	16.752	C
A	497	124	416	713	0.697	522	475	8.9	2.7	23.000	C
B	316	79	723	508	0.621	333	215	6.2	1.9	24.443	C

01:15 - 01:30

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
C	465	116	173	825	0.563	469	684	2.6	1.5	11.264	B
D	276	69	453	643	0.430	279	189	1.5	0.8	10.945	B
A	416	104	343	758	0.549	422	389	2.7	1.4	11.950	B
B	264	66	589	585	0.452	268	176	1.9	0.9	12.644	B

Queue Variation Results for each time segment

00:00 - 00:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.37	0.61	1.10	1.54	1.60			N/A	N/A
D	0.80	0.61	1.10	1.54	1.60			N/A	N/A
A	1.29	0.61	1.16	1.29	1.68			N/A	N/A
B	0.86	0.61	1.10	1.54	1.60			N/A	N/A

00:15 - 00:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	2.30	0.08	1.28	5.46	7.80			N/A	N/A
D	1.32	0.09	1.09	2.42	3.21			N/A	N/A
A	2.31	0.08	1.23	5.58	8.06			N/A	N/A
B	1.56	0.08	1.08	3.27	4.57			N/A	N/A

00:30 - 00:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	5.78	0.05	0.52	16.46	29.35			N/A	N/A
D	3.17	0.04	0.39	7.62	16.91			N/A	N/A
A	7.34	0.08	1.35	20.84	32.30			N/A	N/A
B	5.01	0.06	1.00	14.23	23.03			N/A	N/A

00:45 - 01:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	6.48	0.04	0.40	14.77	35.48			N/A	N/A
D	3.50	0.04	0.35	5.60	17.92			N/A	N/A
A	8.89	0.06	0.65	25.68	45.49			N/A	N/A
B	6.19	0.05	0.50	17.42	32.01			N/A	N/A

01:00 - 01:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	2.64	0.05	0.48	7.24	12.60			N/A	N/A
D	1.50	0.05	0.51	3.80	5.98			N/A	N/A
A	2.71	0.05	0.45	7.38	13.47			N/A	N/A
B	1.91	0.05	0.46	5.12	8.80			N/A	N/A

01:15 - 01:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
C	1.45	0.04	0.36	3.10	7.46			N/A	N/A
D	0.84	0.04	0.37	1.92	3.91			N/A	N/A
A	1.38	0.03	0.34	2.18	6.92			N/A	N/A
B	0.93	0.03	0.33	1.46	4.53			N/A	N/A

Junctions 11			
ARCADY 11 - Roundabout Module			
Version: 11.0.0.2177			
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Filename: PONTEFRACT ROAD ROUNDABOUT - 2026 BASE AM Adjusted.j11

Path: \\Mac\Home\Documents\PARAGON HIGHWAYS\Cudworth Parkway\CUDWORTH PARKWAY ARCADY - 2026
 \Pontefract Road Roundabout

Report generation date: 4/28/2026 12:31:48 PM

«2026 | Base | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - Base				
Arm C	3.7	28.86	0.78	D
Arm D	0.7	6.02	0.40	A
Arm E	6.0	71.58	0.88	F
Arm A	4.8	45.01	0.83	E
Arm B	3.0	27.03	0.74	D

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	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Analysis Set Details

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

2026 | 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		C, D, E, A, B	33.65	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	33.65	D

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRAC T ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct	Queue Length	-350
D	Direct	Queue Length	-230
E	Direct	Queue Length	-538
A	Direct	Queue Length	-643
B	Direct	Queue Length	-862

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	Base	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	437	100.000
D		ONE HOUR	✓	398	100.000
E		ONE HOUR	✓	299	100.000
A		ONE HOUR	✓	372	100.000
B		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	112	141	170	14
	D	125	0	28	125	120
	E	87	45	0	45	122
	A	84	137	39	0	112
	B	3	165	118	89	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

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)
C	0.78	28.86	3.7	D	401	601
D	0.40	6.02	0.7	A	365	548
E	0.88	71.58	6.0	F	274	412
A	0.83	45.01	4.8	E	341	512
B	0.74	27.03	3.0	D	344	516

Main Results for each time segment

00:00 - 00:15

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
C	329	82	441	738	0.446	326	223	0.0	0.9	9.521	A
D	300	75	425	1231	0.243	298	341	0.0	0.4	4.240	A
E	225	56	481	505	0.446	222	243	0.0	0.9	13.820	B
A	280	70	382	601	0.466	276	320	0.0	0.9	12.048	B
B	282	71	385	676	0.418	279	274	0.0	0.8	9.912	A

00:15 - 00:30

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
C	393	98	530	686	0.573	391	267	0.9	1.4	13.303	B
D	358	89	510	1174	0.305	357	410	0.4	0.5	4.846	A
E	269	67	576	450	0.598	266	291	0.9	1.5	21.237	C
A	334	84	458	554	0.603	332	384	0.9	1.6	17.569	C
B	337	84	462	625	0.539	335	329	0.8	1.2	13.566	B

00:30 - 00:45

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
C	481	120	640	621	0.775	473	322	1.4	3.4	25.578	D
D	438	110	618	1101	0.398	437	495	0.5	0.7	5.954	A
E	329	82	702	377	0.873	315	353	1.5	5.1	54.586	F
A	410	102	552	497	0.825	399	465	1.6	4.2	37.156	E
B	413	103	555	564	0.733	407	396	1.2	2.7	24.379	C

00:45 - 01:00

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
C	481	120	650	615	0.783	480	328	3.4	3.7	28.857	D
D	438	110	627	1096	0.400	438	503	0.7	0.7	6.023	A
E	329	82	707	374	0.879	325	358	5.1	6.0	71.578	F
A	410	102	561	491	0.834	407	471	4.2	4.8	45.008	E
B	413	103	566	557	0.742	412	403	2.7	3.0	27.031	D

01:00 - 01:15

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
C	393	98	547	675	0.582	401	277	3.7	1.6	14.848	B
D	358	89	524	1165	0.307	359	424	0.7	0.5	4.921	A
E	269	67	584	445	0.604	286	299	6.0	1.8	27.101	D
A	334	84	477	543	0.616	346	393	4.8	1.9	21.137	C
B	337	84	481	613	0.550	343	342	3.0	1.4	15.035	C

01:15 - 01:30

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
C	329	82	451	732	0.449	332	227	1.6	0.9	9.947	A
D	300	75	434	1225	0.245	300	349	0.5	0.4	4.284	A
E	225	56	486	501	0.449	229	247	1.8	0.9	14.684	B
A	280	70	390	597	0.469	283	325	1.9	1.0	12.766	B
B	282	71	393	670	0.421	285	280	1.4	0.8	10.337	B

Junctions 11			
ARCADY 11 - Roundabout Module			
Version: 11.0.0.2177			
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Filename: PONTEFRAC ROAD ROUNDABOUT - 2026 BASE PM Adjusted.j11

Path: \\Mac\Home\Documents\PARAGON HIGHWAYS\Cudworth Parkway\CUDWORTH PARKWAY ARCADY - 2026
\\Pontefract Road Roundabout

Report generation date: 4/28/2026 12:23:52 PM

«2026 | Base | PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - Base				
Arm C	0.7	5.54	0.41	A
Arm D	7.7	55.64	0.90	F
Arm E	12.3	120.17	0.99	F
Arm A	21.7	204.14	1.09	F
Arm B	1.7	16.63	0.62	C

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	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Analysis Set Details

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

2026 | 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		C, D, E, A, B	74.34	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	74.34	F

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRAC T ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct	Queue Length	200
D	Direct	Queue Length	-746
E	Direct	Queue Length	-507
A	Direct	Queue Length	-705
B	Direct	Queue Length	-780

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026	Base	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	442	100.000
D		ONE HOUR	✓	486	100.000
E		ONE HOUR	✓	345	100.000
A		ONE HOUR	✓	339	100.000
B		ONE HOUR	✓	352	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	100	178	144	20
	D	144	0	39	144	159
	E	142	42	0	17	144
	A	79	128	30	0	102
	B	0	171	114	67	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

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)
C	0.41	5.54	0.7	A	406	608
D	0.90	55.64	7.7	F	446	669
E	0.99	120.17	12.3	F	317	475
A	1.09	204.14	21.7	F	311	467
B	0.62	16.63	1.7	C	323	485

Main Results for each time segment

00:00 - 00:15

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
C	333	83	410	1306	0.255	331	271	0.0	0.4	4.056	A
D	366	91	413	723	0.506	361	328	0.0	1.1	10.836	B
E	260	65	505	521	0.498	256	270	0.0	1.1	14.671	B
A	255	64	483	477	0.535	250	278	0.0	1.2	17.122	C
B	265	66	418	736	0.360	263	315	0.0	0.6	8.332	A

00:15 - 00:30

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
C	397	99	492	1258	0.316	397	324	0.4	0.5	4.594	A
D	437	109	496	668	0.654	433	393	1.1	2.0	16.644	C
E	310	78	606	464	0.669	306	323	1.1	2.1	24.513	C
A	305	76	579	418	0.729	299	333	1.2	2.6	31.870	D
B	316	79	501	681	0.464	315	378	0.6	0.9	10.772	B

00:30 - 00:45

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
C	487	122	583	1204	0.404	486	377	0.5	0.7	5.503	A
D	535	134	603	596	0.898	517	466	2.0	6.6	42.777	E
E	380	95	729	393	0.967	354	391	2.1	8.5	74.633	F
A	373	93	681	355	1.051	333	402	2.6	12.6	107.750	F
B	388	97	575	633	0.613	385	439	0.9	1.7	15.772	C

00:45 - 01:00

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
C	487	122	589	1201	0.405	487	386	0.7	0.7	5.541	A
D	535	134	605	594	0.901	531	470	6.6	7.7	55.639	F
E	380	95	742	385	0.986	365	394	8.5	12.3	120.168	F
A	373	93	699	344	1.086	337	407	12.6	21.7	204.142	F
B	388	97	587	625	0.620	387	449	1.7	1.7	16.629	C

01:00 - 01:15

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
C	397	99	531	1235	0.322	398	364	0.7	0.5	4.738	A
D	437	109	504	662	0.660	459	425	7.7	2.3	21.298	C
E	310	78	630	450	0.690	348	333	12.3	2.7	48.862	E
A	305	76	635	383	0.795	365	343	21.7	6.6	151.775	F
B	316	79	577	631	0.501	319	423	1.7	1.1	12.770	B

01:15 - 01:30

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
C	333	83	428	1296	0.257	333	284	0.5	0.4	4.116	A
D	366	91	420	719	0.509	370	342	2.3	1.2	11.503	B
E	260	65	515	516	0.503	266	275	2.7	1.2	16.221	C
A	255	64	499	468	0.546	276	282	6.6	1.4	22.749	C
B	265	66	445	718	0.369	267	330	1.1	0.7	8.812	A

Junctions 11			
ARCADY 11 - Roundabout Module			
Version: 11.0.0.2177			
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Filename: PONTEFRAC ROAD ROUNDABOUT - 2026 PLUS COMMITTED AM Adjusted.j11

Path: \\Mac\Home\Documents\PARAGON HIGHWAYS\Cudworth Parkway\CUDWORTH PARKWAY ARCADY - 2026
\\Pontefract Road Roundabout

Report generation date: 4/28/2026 12:41:50 PM

«2026 | PLUS COMM | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - PLUS COMM				
Arm C	4.6	37.00	0.83	E
Arm D	0.8	6.29	0.42	A
Arm E	7.9	91.67	0.92	F
Arm A	5.7	53.62	0.86	F
Arm B	5.1	42.03	0.84	E

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	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Analysis Set Details

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

2026 | PLUS COMM | 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		C, D, E, A, B	43.13	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	43.13	E

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRAC T ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct	Queue Length	-350
D	Direct	Queue Length	-230
E	Direct	Queue Length	-538
A	Direct	Queue Length	-643
B	Direct	Queue Length	-862

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	PLUS COMM	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	437	100.000
D		ONE HOUR	✓	418	100.000
E		ONE HOUR	✓	301	100.000
A		ONE HOUR	✓	375	100.000
B		ONE HOUR	✓	428	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	112	141	170	14
	D	125	0	28	125	140
	E	87	45	0	45	124
	A	84	137	39	0	115
	B	3	208	123	94	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

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)
C	0.83	37.00	4.6	E	401	601
D	0.42	6.29	0.8	A	384	575
E	0.92	91.67	7.9	F	276	414
A	0.86	53.62	5.7	F	344	516
B	0.84	42.03	5.1	E	393	589

Main Results for each time segment

00:00 - 00:15

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
C	329	82	480	715	0.460	325	223	0.0	0.9	10.068	B
D	315	79	432	1226	0.257	313	373	0.0	0.4	4.330	A
E	227	57	499	494	0.459	223	246	0.0	0.9	14.426	B
A	282	71	399	591	0.477	278	323	0.0	1.0	12.503	B
B	322	81	384	676	0.477	318	293	0.0	1.0	10.963	B

00:15 - 00:30

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
C	393	98	576	659	0.597	390	267	0.9	1.6	14.616	B
D	376	94	519	1168	0.322	375	448	0.4	0.5	4.990	A
E	271	68	598	437	0.619	267	296	0.9	1.7	22.935	C
A	337	84	478	542	0.621	334	388	1.0	1.7	18.740	C
B	385	96	461	625	0.615	382	351	1.0	1.7	16.074	C

00:30 - 00:45

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
C	481	120	692	590	0.815	471	321	1.6	4.1	30.832	D
D	460	115	625	1097	0.420	459	537	0.5	0.8	6.199	A
E	331	83	728	363	0.914	313	357	1.7	6.2	64.777	F
A	413	103	573	484	0.853	400	468	1.7	4.9	42.168	E
B	471	118	552	566	0.833	460	421	1.7	4.5	34.346	D

00:45 - 01:00

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
C	481	120	706	582	0.827	479	326	4.1	4.6	36.996	E
D	460	115	636	1089	0.422	460	549	0.8	0.8	6.293	A
E	331	83	734	359	0.923	325	363	6.2	7.9	91.673	F
A	413	103	583	477	0.865	409	475	4.9	5.7	53.621	F
B	471	118	564	558	0.844	469	429	4.5	5.1	42.025	E

01:00 - 01:15

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
C	393	98	604	642	0.612	404	279	4.6	1.8	17.350	C
D	376	94	539	1155	0.325	377	469	0.8	0.5	5.098	A
E	271	68	609	431	0.628	294	306	7.9	2.0	33.028	D
A	337	84	502	528	0.639	352	401	5.7	2.1	24.112	C
B	385	96	486	609	0.631	397	368	5.1	2.0	19.662	C

01:15 - 01:30

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
C	329	82	493	708	0.465	332	227	1.8	1.0	10.640	B
D	315	79	442	1219	0.258	315	383	0.5	0.4	4.382	A
E	227	57	506	490	0.462	231	252	2.0	1.0	15.484	C
A	282	71	407	586	0.481	286	330	2.1	1.0	13.374	B
B	322	81	394	670	0.481	326	299	2.0	1.0	11.649	B

Junctions 11			
ARCADY 11 - Roundabout Module			
Version: 11.0.0.2177			
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Filename: PONTEFRAC ROAD ROUNDABOUT - 2026 PLUS COMMITTED PM Adjusted.j11

Path: \\Mac\Home\Documents\PARAGON HIGHWAYS\Cudworth Parkway\CUDWORTH PARKWAY ARCADY - 2026
\\Pontefract Road Roundabout

Report generation date: 4/28/2026 12:46:05 PM

«2026 | PLUS COMM | PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - PLUS COMM				
Arm C	0.8	5.83	0.42	A
Arm D	13.2	87.40	0.97	F
Arm E	17.5	163.13	1.04	F
Arm A	28.0	262.10	1.14	F
Arm B	2.6	21.64	0.72	C

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	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Analysis Set Details

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

2026 | PLUS COMM | 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		C, D, E, A, B	98.59	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	98.59	F

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRAC T ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct	Queue Length	200
D	Direct	Queue Length	-746
E	Direct	Queue Length	-507
A	Direct	Queue Length	-705
B	Direct	Queue Length	-780

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026	PLUS COMM	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	442	100.000
D		ONE HOUR	✓	515	100.000
E		ONE HOUR	✓	348	100.000
A		ONE HOUR	✓	343	100.000
B		ONE HOUR	✓	413	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	100	178	144	20
	D	144	0	39	144	188
	E	142	42	0	17	147
	A	79	128	30	0	106
	B	0	220	120	73	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

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)
C	0.42	5.83	0.8	A	406	608
D	0.97	87.40	13.2	F	473	709
E	1.04	163.13	17.5	F	319	479
A	1.14	262.10	28.0	F	315	472
B	0.72	21.64	2.6	C	379	568

Main Results for each time segment

00:00 - 00:15

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
C	333	83	455	1280	0.260	331	270	0.0	0.4	4.168	A
D	388	97	422	717	0.541	383	364	0.0	1.3	11.682	B
E	262	65	531	507	0.517	257	274	0.0	1.1	15.620	C
A	258	65	507	463	0.558	253	282	0.0	1.3	18.445	C
B	311	78	418	736	0.423	308	342	0.0	0.8	9.186	A

00:15 - 00:30

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
C	397	99	545	1227	0.324	397	323	0.4	0.5	4.768	A
D	463	116	506	661	0.701	458	436	1.3	2.4	19.130	C
E	313	78	636	446	0.701	308	328	1.1	2.3	27.698	D
A	308	77	606	401	0.769	301	338	1.3	3.1	37.191	E
B	371	93	499	683	0.544	369	408	0.8	1.3	12.565	B

00:30 - 00:45

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
C	487	122	643	1169	0.416	486	368	0.5	0.8	5.785	A
D	567	142	615	588	0.964	537	514	2.4	10.0	57.862	F
E	383	96	756	377	1.015	349	396	2.3	10.9	91.615	F
A	378	94	700	343	1.100	328	405	3.1	15.7	129.941	F
B	455	114	561	642	0.708	450	467	1.3	2.5	20.112	C

00:45 - 01:00

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
C	487	122	648	1166	0.417	487	376	0.8	0.8	5.828	A
D	567	142	617	586	0.968	554	517	10.0	13.2	87.397	F
E	383	96	773	368	1.042	356	399	10.9	17.5	163.127	F
A	378	94	718	332	1.137	328	411	15.7	28.0	261.410	F
B	455	114	570	636	0.715	454	476	2.5	2.6	21.636	C

01:00 - 01:15

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
C	397	99	574	1210	0.328	398	368	0.8	0.5	4.887	A
D	463	116	513	656	0.706	504	459	13.2	2.9	31.646	D
E	313	78	680	421	0.743	367	337	17.5	3.9	90.560	F
A	308	77	693	348	0.886	335	355	28.0	21.4	262.096	F
B	371	93	567	638	0.582	375	461	2.6	1.6	15.305	C

01:15 - 01:30

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
C	333	83	502	1252	0.266	333	299	0.5	0.4	4.311	A
D	388	97	434	709	0.547	394	401	2.9	1.4	12.787	B
E	262	65	543	500	0.524	273	285	3.9	1.3	18.160	C
A	258	65	528	449	0.575	337	287	21.4	1.6	57.646	F
B	311	78	487	690	0.450	314	378	1.6	0.9	10.587	B

Junctions 11			
ARCADY 11 - Roundabout Module			
Version: 11.0.0.2177			
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Path: \\Mac\Home\Documents\PARAGON HIGHWAYS\Cudworth Parkway\CUDWORTH PARKWAY ARCADY - 2026
 \Pontefract Road Roundabout
Report generation date: 4/28/2026 12:53:04 PM

«2026 | PLUS COMM PLUS DEV | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - PLUS COMM PLUS DEV				
Arm C	5.3	42.57	0.85	E
Arm D	0.8	6.41	0.43	A
Arm E	8.9	102.50	0.94	F
Arm A	6.1	57.54	0.88	F
Arm B	8.2	62.32	0.91	F

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	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Analysis Set Details

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

2026 | PLUS COMM PLUS DEV | 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		C, D, E, A, B	51.29	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	51.29	F

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRAC T ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct	Queue Length	-350
D	Direct	Queue Length	-230
E	Direct	Queue Length	-538
A	Direct	Queue Length	-643
B	Direct	Queue Length	-862

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	PLUS COMM PLUS DEV	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	437	100.000
D		ONE HOUR	✓	426	100.000
E		ONE HOUR	✓	302	100.000
A		ONE HOUR	✓	376	100.000
B		ONE HOUR	✓	464	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	112	141	170	14
	D	125	0	28	125	148
	E	87	45	0	45	125
	A	84	137	39	0	116
	B	10	231	126	97	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

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)
C	0.85	42.57	5.3	E	401	601
D	0.43	6.41	0.8	A	391	586
E	0.94	102.50	8.9	F	277	416
A	0.88	57.54	6.1	F	345	518
B	0.91	62.32	8.2	F	426	639

Main Results for each time segment

00:00 - 00:15

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
C	329	82	501	703	0.468	325	228	0.0	0.9	10.393	B
D	321	80	436	1223	0.262	319	390	0.0	0.4	4.373	A
E	227	57	507	489	0.465	224	248	0.0	0.9	14.709	B
A	283	71	405	587	0.482	279	326	0.0	1.0	12.693	B
B	349	87	384	676	0.517	345	300	0.0	1.1	11.805	B

00:15 - 00:30

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
C	393	98	601	644	0.610	390	273	0.9	1.7	15.435	C
D	383	96	523	1165	0.329	382	468	0.4	0.5	5.057	A
E	271	68	608	432	0.629	268	298	0.9	1.7	23.771	C
A	338	85	486	538	0.629	335	390	1.0	1.8	19.242	C
B	417	104	461	626	0.667	413	360	1.1	2.1	18.339	C

00:30 - 00:45

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
C	481	120	716	576	0.835	470	327	1.7	4.5	34.030	D
D	469	117	628	1095	0.428	468	558	0.5	0.8	6.300	A
E	333	83	738	357	0.932	312	358	1.7	6.8	69.756	F
A	414	103	581	479	0.864	400	470	1.8	5.1	44.354	E
B	511	128	551	567	0.902	493	430	2.1	6.6	45.322	E

00:45 - 01:00

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
C	481	120	734	566	0.851	478	333	4.5	5.3	42.572	E
D	469	117	640	1087	0.432	469	571	0.8	0.8	6.411	A
E	333	83	745	353	0.943	324	365	6.8	8.9	102.496	F
A	414	103	592	472	0.876	410	477	5.1	6.1	57.544	F
B	511	128	563	559	0.914	504	439	6.6	8.2	62.318	F

01:00 - 01:15

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
C	393	98	640	621	0.633	406	287	5.3	2.0	19.481	C
D	383	96	550	1147	0.334	384	496	0.8	0.6	5.198	A
E	271	68	622	424	0.641	299	312	8.9	2.1	37.106	E
A	338	85	513	521	0.649	354	407	6.1	2.2	25.654	D
B	417	104	488	608	0.686	440	379	8.2	2.6	26.157	D

01:15 - 01:30

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
C	329	82	516	694	0.474	333	233	2.0	1.0	11.088	B
D	321	80	448	1216	0.264	321	401	0.6	0.4	4.430	A
E	227	57	515	485	0.469	232	255	2.1	1.0	15.899	C
A	283	71	414	582	0.486	287	333	2.2	1.1	13.639	B
B	349	87	394	669	0.522	355	307	2.6	1.2	12.794	B

Junctions 11			
ARCADY 11 - Roundabout Module			
Version: 11.0.0.2177			
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Filename: PONTEFRAC ROAD ROUNDABOUT - 2026 PLUS COMMITTED PLUS DEV PM Adjusted.j11
Path: \\Mac\Home\Documents\PARAGON HIGHWAYS\Cudworth Parkway\CUDWORTH PARKWAY ARCADY - 2026
 \Pontefract Road Roundabout
Report generation date: 4/28/2026 12:55:30 PM

«2026 | PLUS COMM PLUS DEV | PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
2026 - PLUS COMM PLUS DEV				
Arm C	0.8	5.85	0.42	A
Arm D	19.2	117.31	1.01	F
Arm E	21.0	192.14	1.07	F
Arm A	32.8	358.23	1.17	F
Arm B	2.7	21.82	0.72	C

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	Pontefract Road Roundabout
Location	
Site number	
Date	4/23/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LEIGHOGDEN5BEE\leighogden
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 simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Analysis Set Details

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

2026 | PLUS COMM PLUS DEV | 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		C, D, E, A, B	126.84	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	126.84	F

Arms

Arms

Arm	Name	Description	No give-way line
C	BARNSELEY ROAD		
D	PONTEFRAC T ROAD		
E	BURTON ROAD		
A	W GREEN WAY		
B	A628 CUDWORTH PARKWAY		

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
C	3.70	4.80	7.5	40.0	25.0	37.0		
D	3.60	7.30	17.1	53.0	25.0	40.0		
E	3.70	4.90	7.0	17.7	25.0	36.0		
A	4.60	4.90	11.9	24.3	25.0	32.0		
B	4.60	7.20	18.8	10.7	25.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C	0.590	1348
D	0.670	1746
E	0.575	1319
A	0.617	1480
B	0.656	1790

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C	Direct	Queue Length	200
D	Direct	Queue Length	-746
E	Direct	Queue Length	-507
A	Direct	Queue Length	-705
B	Direct	Queue Length	-780

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026	PLUS COMM PLUS DEV	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
C		ONE HOUR	✓	442	100.000
D		ONE HOUR	✓	537	100.000
E		ONE HOUR	✓	350	100.000
A		ONE HOUR	✓	346	100.000
B		ONE HOUR	✓	422	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		C	D	E	A	B
From	C	0	100	178	144	20
	D	144	0	39	144	210
	E	142	42	0	17	149
	A	79	128	30	0	109
	B	0	227	121	74	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To					
		C	D	E	A	B
From	C	10	10	10	10	10
	D	10	10	10	10	10
	E	10	10	10	10	10
	A	10	10	10	10	10
	B	10	10	10	10	10

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)
C	0.42	5.85	0.8	A	406	608
D	1.01	117.31	19.2	F	493	739
E	1.07	192.14	21.0	F	321	482
A	1.17	358.23	32.8	F	317	476
B	0.72	21.82	2.7	C	387	581

Main Results for each time segment

00:00 - 00:15

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
C	333	83	462	1276	0.261	331	270	0.0	0.4	4.185	A
D	404	101	424	716	0.565	399	369	0.0	1.4	12.284	B
E	263	66	548	497	0.530	259	275	0.0	1.2	16.313	C
A	260	65	524	452	0.576	255	283	0.0	1.4	19.568	C
B	318	79	417	736	0.432	314	361	0.0	0.8	9.321	A

00:15 - 00:30

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
C	397	99	552	1222	0.325	397	322	0.4	0.5	4.793	A
D	483	121	508	660	0.732	477	442	1.4	2.8	21.070	C
E	315	79	656	435	0.724	309	329	1.2	2.6	30.211	D
A	311	78	627	389	0.800	302	338	1.4	3.6	42.184	E
B	379	95	498	684	0.555	377	431	0.8	1.3	12.845	B

00:30 - 00:45

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
C	487	122	649	1166	0.417	486	361	0.5	0.8	5.814	A
D	591	148	616	587	1.007	550	518	2.8	13.2	70.271	F
E	385	96	770	369	1.044	346	395	2.6	12.5	103.069	F
A	381	95	713	335	1.136	323	403	3.6	18.1	148.456	F
B	465	116	550	649	0.716	460	486	1.3	2.6	20.386	C

00:45 - 01:00

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
C	487	122	653	1163	0.418	487	368	0.8	0.8	5.854	A
D	591	148	619	585	1.011	567	521	13.2	19.2	117.307	F
E	385	96	788	359	1.073	351	398	12.5	21.0	192.138	F
A	381	95	730	325	1.173	322	409	18.1	32.8	309.019	F
B	465	116	557	644	0.721	464	495	2.6	2.7	21.820	C

01:00 - 01:15

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
C	397	99	571	1212	0.328	398	369	0.8	0.5	4.876	A
D	483	121	512	656	0.735	546	457	19.2	3.4	48.405	E
E	315	79	721	397	0.792	374	337	21.0	6.1	138.477	F
A	311	78	734	322	0.965	311	362	32.8	32.8	358.232	F
B	379	95	556	645	0.588	384	489	2.7	1.6	15.399	C

01:15 - 01:30

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
C	333	83	529	1236	0.269	333	313	0.5	0.4	4.388	A
D	404	101	439	706	0.573	412	424	3.4	1.5	13.815	B
E	263	66	562	489	0.539	283	289	6.1	1.3	20.784	C
A	260	65	555	433	0.602	384	289	32.8	2.0	133.868	F
B	318	79	522	668	0.476	320	417	1.6	1.0	11.477	B