

Road Investment Programme
M25 Junction 28 Improvements
Technical Appraisal Report (Appendices) – Vol 2 of 2

November 2016

Appendix A

Base year traffic analysis

Appendix A – Base year traffic analysis

A.1 Base year turning movements

Figure A-1 M25 Junction 28 – Observed turning flows (AM peak), 2014 base year

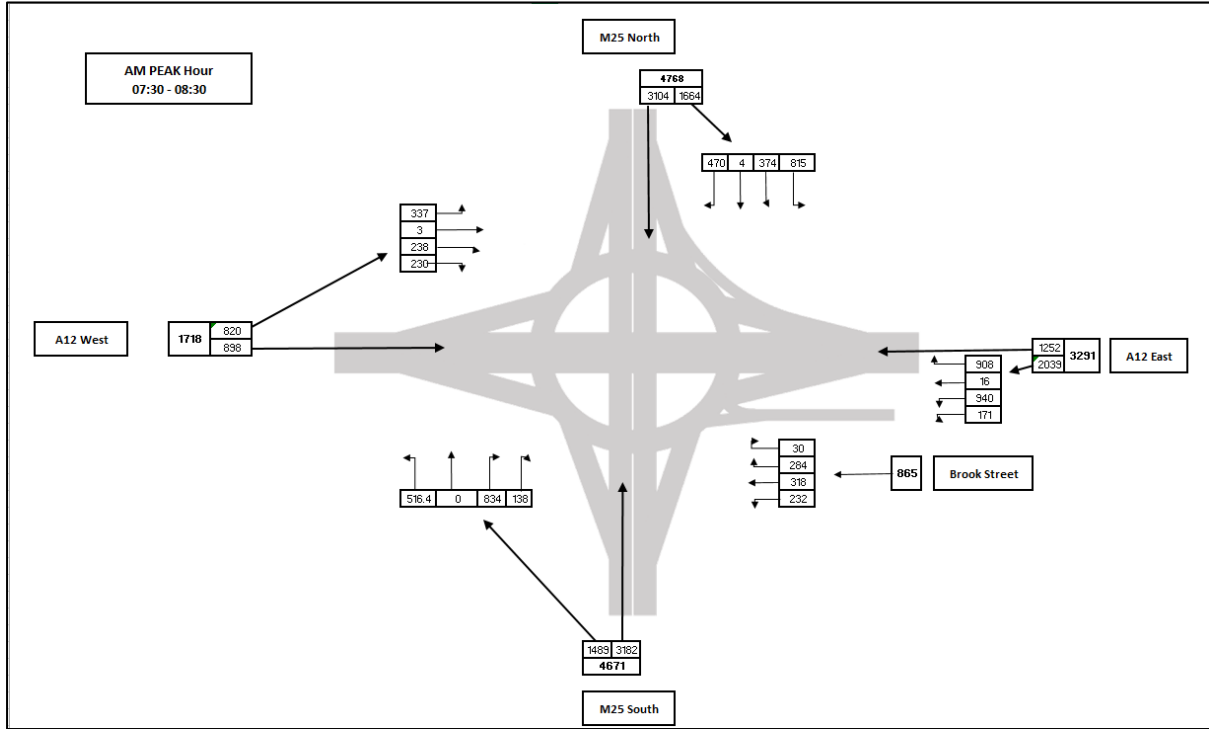


Figure A-2 M25 Junction 28 – Observed turning flows (Inter peak), 2014 base year

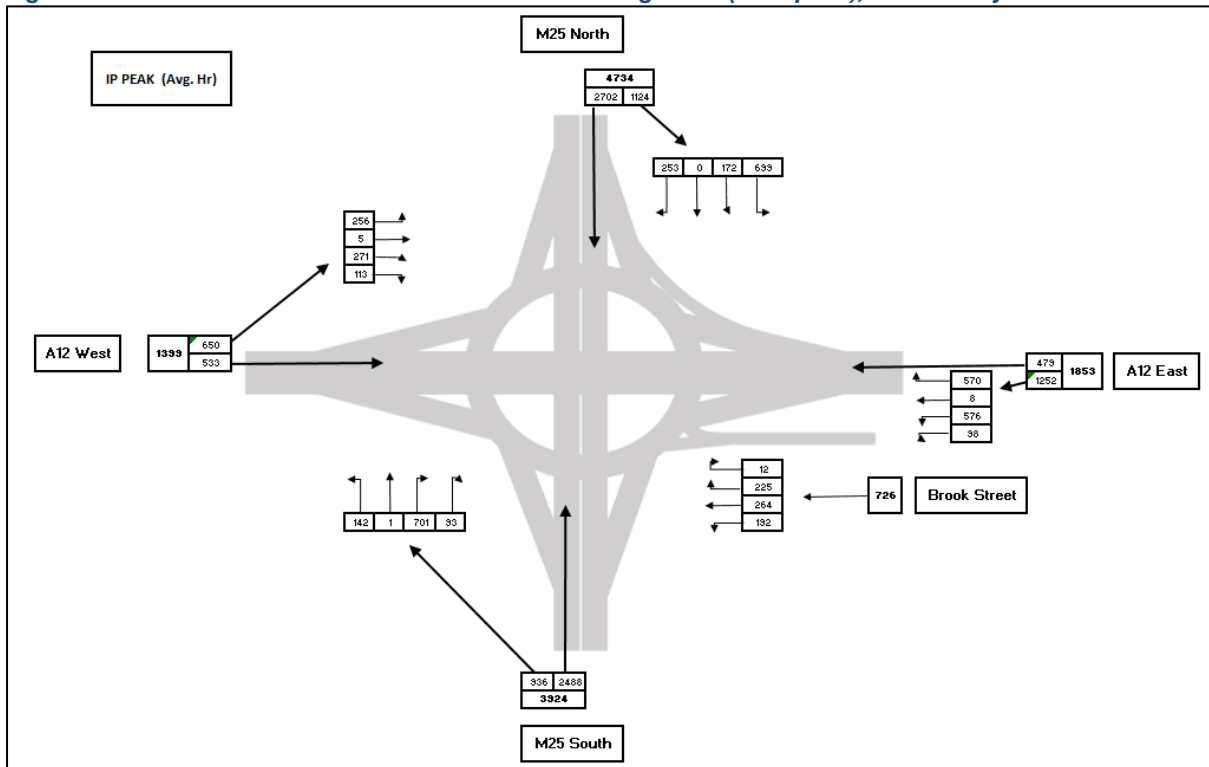
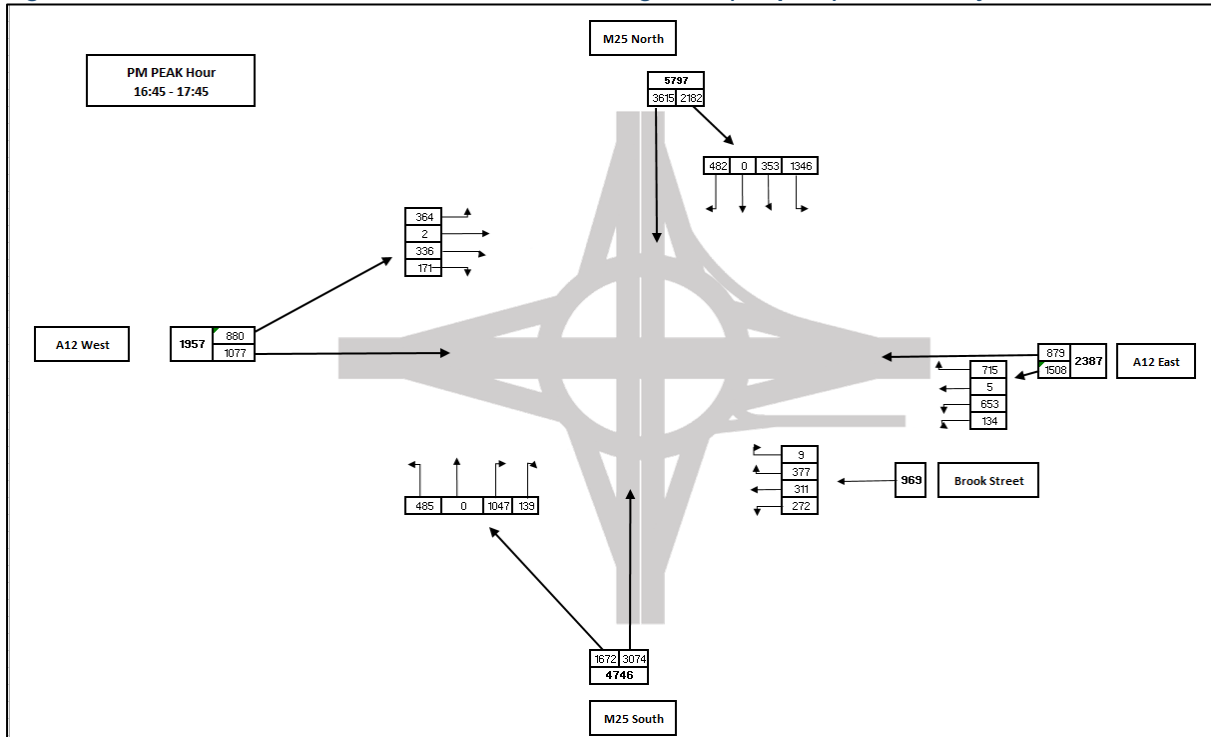


Figure A-3 M25 Junction 28 – Observed turning flows (PM peak), 2014 base year



A.2 Base year demand matrices

Table A-1 Observed Turning Movements (Vehicle) – Lights, AM Peak (07.30 – 08.30)

Total number of vehicles / hour	M25 J28 North	A12 East	Brook Street	M25 J28 South	A12 West	Wigley Bush Lane	Nags Head Lane
M25 J28 North	0	714	326	2414	447	26	7
A12 East	797	4	152	833	1227	12	3
Brook Street	223	24	0	184	261	57	86
M25 J28 South	2334	723	125	0	483	10	3
A12 West	315	861	207	215	12	16	4
Wigley Bush Lane	37	4	72	30	43	0	28
Nags Head Lane	9	1	116	8	11	60	0

Table A-2 Observed Turning Movements (Vehicle) – Heavies, AM Peak (07.30 – 08.30)

Total number of vehicles / hour	M25 J28 North	A12 East	Brook Street	M25 J28 South	A12 West	Wigley Bush Lane	Nags Head Lane
M25 J28 North	0	101	14	694	23	1	0
A12 East	111	0	4	107	41	0	0
Brook Street	13	1	0	8	2	2	3
M25 J28 South	848	111	1	0	33	0	0
A12 West	22	40	9	15	0	1	0
Wigley Bush Lane	2	0	3	1	0	0	1
Nags Head Lane	1	0	5	0	0	2	0

Table A-3 *Observed Turning Movements (Vehicle) – Lights, PM Peak (16.45 – 17.45)*

Total number of vehicles / hour	M25 J28 North	A12 East	Brook Street	M25 J28 South	A12 West	Wigley Bush Lane	Nags Head Lane
M25 J28 North	0	1219	285	2853	458	47	12
A12 East	639	1	110	572	869	18	5
Brook Street	337	7	0	240	278	73	117
M25 J28 South	2475	960	112	0	470	18	5
A12 West	345	1058	277	167	7	45	12
Wigley Bush Lane	26	1	58	19	22	0	60
Nags Head Lane	7	0	87	5	6	29	0

Table A-4 *Observed Turning Movements (Vehicle) – Heavies, PM Peak (16.45 – 17.45)*

Total number of vehicles / hour	M25 J28 North	A12 East	Brook Street	M25 J28 South	A12 West	Wigley Bush Lane	Nags Head Lane
M25 J28 North	0	127	7	762	24	1	0
A12 East	76	0	1	81	15	0	0
Brook Street	6	1	0	7	5	2	3
M25 J28 South	599	87	3	0	15	1	0
A12 West	19	21	2	4	0	0	0
Wigley Bush Lane	1	0	2	1	0	0	2
Nags Head Lane	0	0	3	0	0	1	0

Table A-5 *Observed Turning Movements (Vehicle) – Lights, Inter Peak (Average flows between 10.00 and 16.00)*

Total number of vehicles / hour	M25 J28 North	A12 East	Brook Street	M25 J28 South	A12 West	Wigley Bush Lane	Nags Head Lane
M25 J28 North	0	567	143	1803	227	11	3
A12 East	468	1	85	461	460	7	2
Brook Street	178	8	0	147	209	55	86
M25 J28 South	1671	557	81	0	123	6	2
A12 West	222	508	236	94	6	19	5
Wigley Bush Lane	29	1	55	24	34	0	38
Nags Head Lane	7	0	86	6	9	38	0

Table A-6 *Observed Turning Movements (Vehicle) – Heavies, Inter Peak (Average flows between 10.00 and 16.00)*

Total number of vehicles / hour	M25 J28 North	A12 East	Brook Street	M25 J28 South	A12 West	Wigley Bush Lane	Nags Head Lane
M25 J28 North	0	132	13	900	26	1	0
A12 East	102	0	4	115	27	0	0
Brook Street	8	2	0	11	9	12	19
M25 J28 South	818	144	4	0	19	0	0
A12 West	34	30	10	19	0	1	0
Wigley Bush Lane	1	0	12	2	2	0	8
Nags Head Lane	0	0	19	0	0	8	0

Appendix B

Forecast Do-minimum traffic analysis

Appendix B – Forecast Do-minimum traffic analysis

B.1 Forecast 2037 Do-minimum turning movements

Figure B-1 M25 Junction 28 - Forecast turning flows (AM peak, 2037 future year)

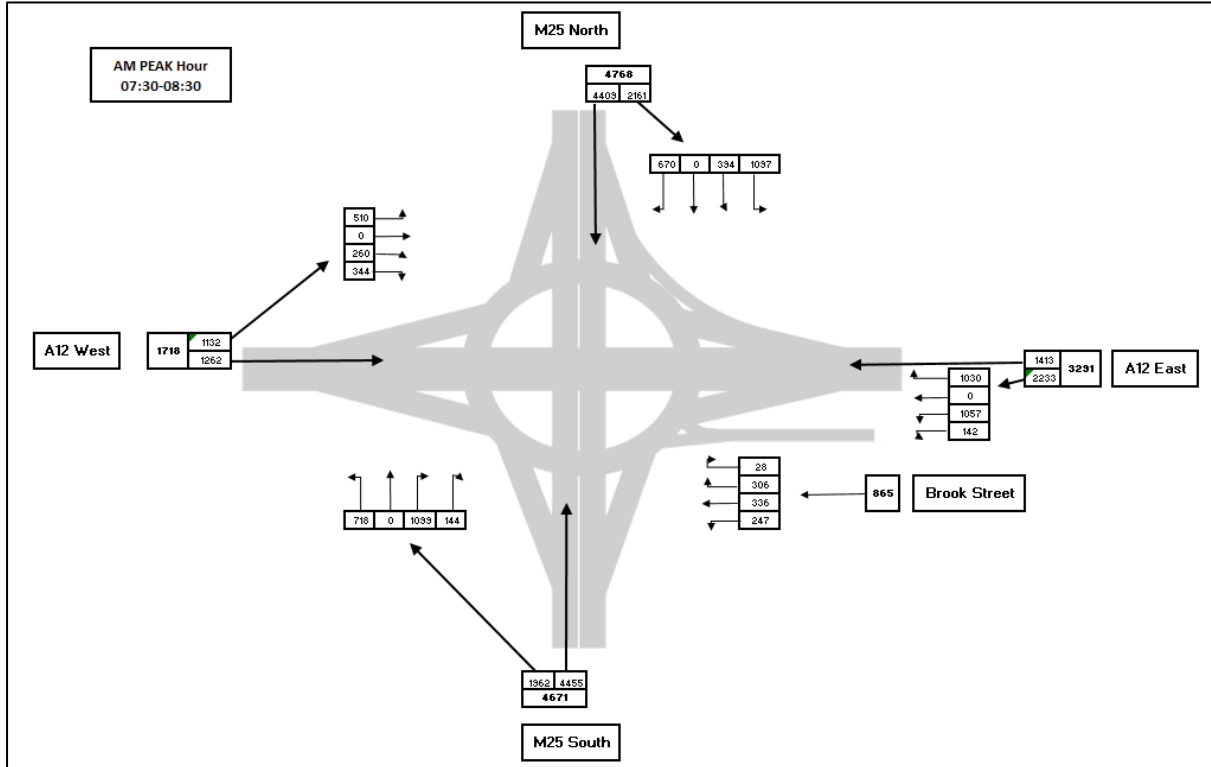


Figure B-2 M25 Junction 28 - Forecast turning flows (Inter peak, 2037 future year)

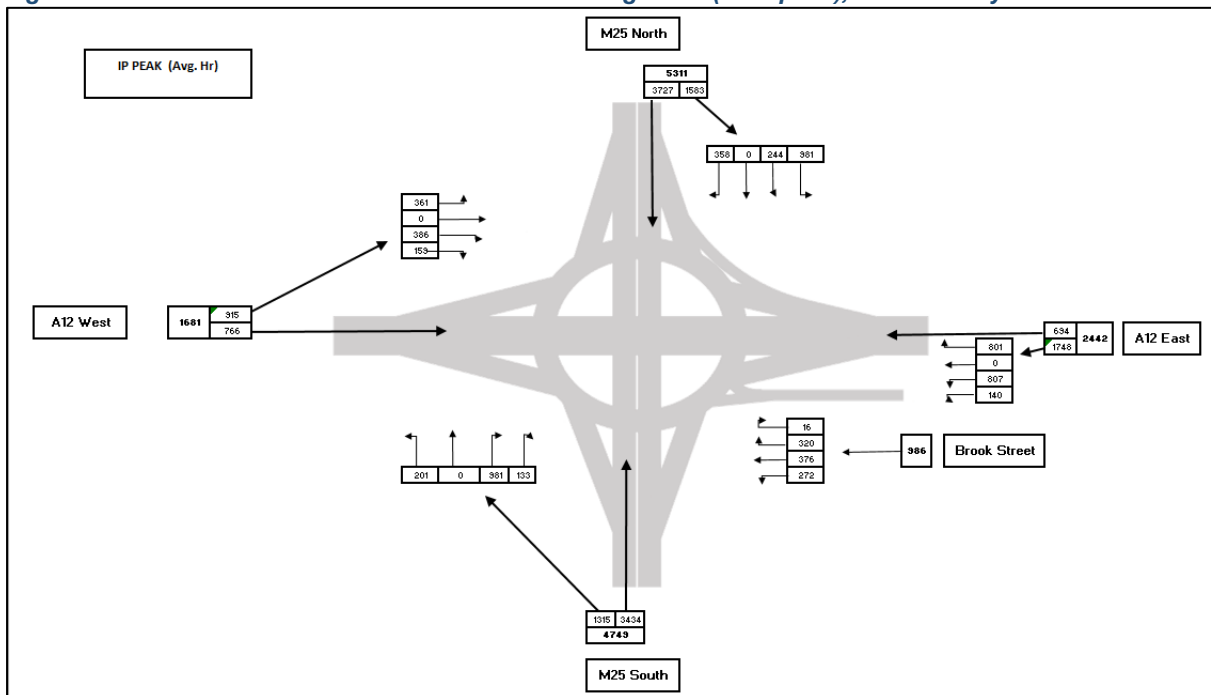
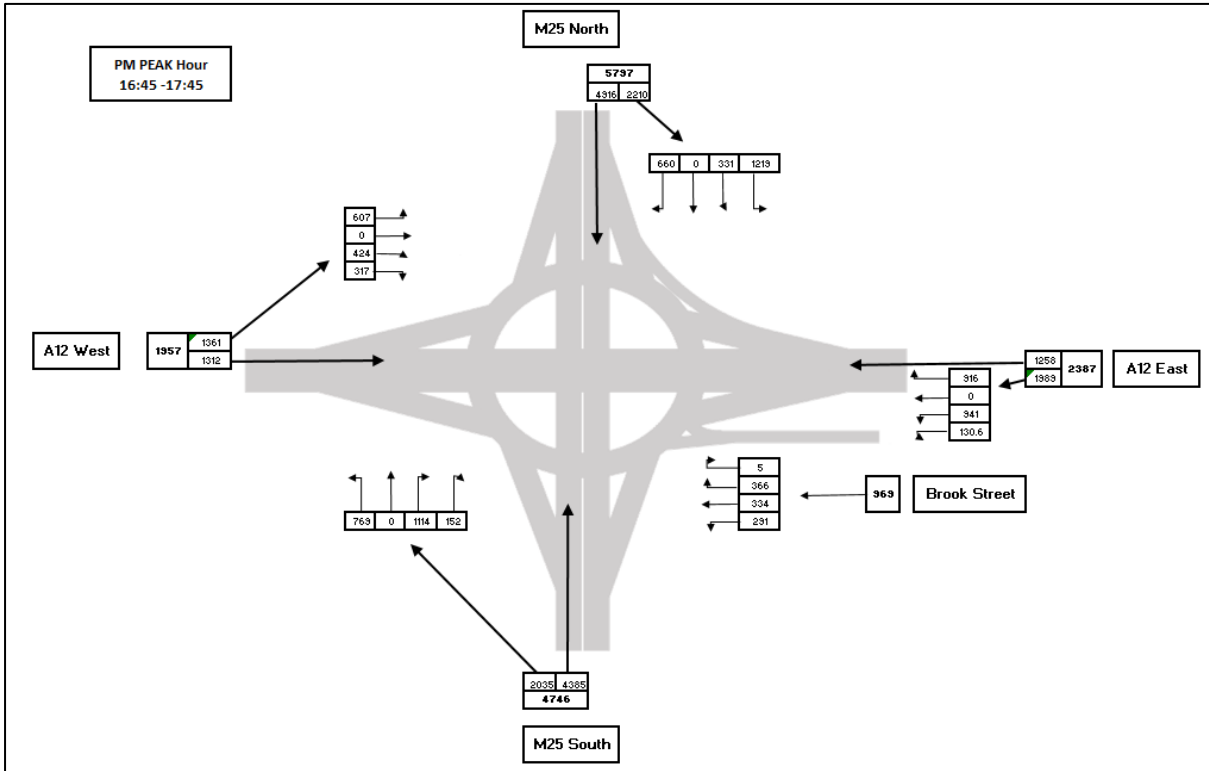


Figure B-3 M25 Junction 28 - Forecast turning flows (PM peak, 2037 future year)



B.2 2022 Forecast year demand matrices

Table B-1 2022 AM Peak Matrices – Light Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	714	326	2,414	447	26	7	3,935
A12 E	797	4	152	833	1,227	12	3	3,028
A1023	223	24	0	184	261	57	85	835
M25 S	2,334	723	125	0	483	10	3	3,678
A12 W	315	861	207	215	12	16	4	1,631
Wigley Bush Ln	37	4	72	30	43	0	28	213
Nags Head Ln	9	1	115	8	11	59	0	203
Total	3,714	2,332	997	3,684	2,485	180	131	13,523
2022								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	823	332	2853	546	27	8	4,589
A12 E	879	4	144	914	1,390	12	3	3,346
A1023	225	24	0	186	272	51	81	838
M25 S	2,745	823	126	0	583	11	3	4,291
A12 W	382	1,010	215	259	15	17	5	1,903
Wigley Bush Ln	39	3	65	32	47	0	28	214
Nags Head Ln	10	0	112	9	13	61	0	205
Total	4,280	2,687	995	4,252	2,865	178	128	15,386
Difference 2022 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	109	6	439	99	1	1	655 (17%)
A12 E	82	0	-8	81	163	0	0	318 (10%)
A1023	2	-1	0	2	11	-6	-4	3 (0%)
M25 S	411	100	1	0	99	1	1	613 (17%)
A12 W	66	149	8	44	3	1	0	271(17%)
Wigley Bush Ln	3	-1	-6	1	4	0	0	1 (1%)
Nags Head Ln	1	-1	-3	1	2	2	0	2 (1%)
Total	566 (15%)	356 (15%)	-2 (0%)	568 (15%)	380 (15%)	-2 (-1%)	-2 (-1%)	1,863 (14%)

Table B-2 2022 AM Peak Matrices – Heavy Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	101	14	694	23	1	0	833
A12 E	111	0	4	107	41	0	0	263
A1023	13	1	0	8	2	2	3	31
M25 S	848	111	1	0	33	0	0	993
A12 W	22	40	9	15	0	1	0	87
Wigley Bush Ln	2	0	3	1	0	0	1	8
Nags Head Ln	1	0	5	0	0	2	0	8
Total	997	253	35	826	100	7	5	2,223
2022								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	109	14	758	26	1	0	908
A12 E	115	0	4	110	43	0	0	272
A1023	13	1	0	8	3	4	4	33
M25 S	925	120	1	0	37	0	0	1,083
A12 W	24	44	10	17	0	0	0	95
Wigley Bush Ln	3	0	4	1	0	0	0	8
Nags Head Ln	0	0	4	0	0	4	0	8
Total	1,080	274	37	894	108	9	4	2,407
Difference 2022 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	8	0	64	3	0	0	75 (9%)
A12 E	4	0	0	3	2	0	0	9 (3%)
A1023	0	0	0	0	1	2	1	3 (8%)
M25 S	77	9	0	0	4	0	0	90 (9%)
A12 W	2	4	1	2	0	-1	0	8 (9%)
Wigley Bush Ln	1	0	1	0	0	0	-1	0 (0%)
Nags Head Ln	-1	0	-1	0	0	2	0	0 (0%)
Total	83 (8%)	21 (8%)	2 (6%)	68 (8%)	8 (8%)	2 (32%)	-1 (-22%)	184 (8%)

Table B-3 2022 Inter Peak Matrices – Light Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	567	143	1,803	227	11	3	2,754
A12 E	468	1	85	461	460	7	2	1,483
A1023	178	8	0	147	209	49	74	665
M25 S	1,671	557	81	0	123	6	2	2440
A12 W	222	508	236	94	6	19	5	1,089
Wigley Bush Ln	29	1	62	24	34	0	24	175
Nags Head Ln	7	0	99	6	9	51	0	173
Total	2,576	1,642	706	2,535	1,068	143	109	8,780
2022								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	666	168	2,118	266	13	4	3,236
A12 E	550	1	100	541	540	8	2	1,743
A1023	209	9	0	173	246	58	86	782
M25 S	1,963	654	95	0	145	7	2	2,867
A12 W	260	597	278	110	7	22	6	1,280
Wigley Bush Ln	34	2	72	28	40	0	28	205
Nags Head Ln	9	0	116	7	10	60	0	203
Total	3,026	1,930	830	2,978	1,255	168	128	10,315
Difference 2022 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	99	25	315	40	2	1	482 (17%)
A12 E	82	0	15	81	80	1	0	259 (17%)
A1023	31	1	0	26	37	9	13	116 (17%)
M25 S	292	97	14	0	22	1	0	427 (17%)
A12 W	39	89	41	16	1	3	1	191 (17%)
Wigley Bush Ln	5	0	11	4	6	0	4	31 (17%)
Nags Head Ln	1	0	17	1	2	9	0	30 (17%)
Total	451 (17%)	287 (17%)	124 (17%)	443 (17%)	187 (17%)	25 (17%)	19 (17%)	1,536 (17%)

Table B-4 2022 Inter Peak Matrices – Heavy Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	132	13	900	26	1	0	1,072
A12 E	102	0	4	115	27	0	0	248
A1023	8	2	0	11	9	11	16	57
M25 S	818	144	4	0	19	0	0	984
A12 W	34	30	10	19	0	1	0	94
Wigley Bush Ln	1	0	13	2	2	0	5	24
Nags Head Ln	0	0	22	0	0	11	0	34
Total	964	307	65	1,048	83	24	22	2,513
2022								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	144	14	978	28	1	0	1,166
A12 E	111	0	4	125	29	0	0	270
A1023	9	2	0	12	10	12	17	62
M25 S	889	156	4	0	20	0	0	1,070
A12 W	37	32	11	21	0	1	0	102
Wigley Bush Ln	1	0	15	2	2	0	6	26
Nags Head Ln	0	0	23	1	0	12	0	37
Total	1,048	334	71	1,139	90	26	24	2,732
Difference 2022 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	12	1	78	2	0	0	93 (9%)
A12 E	9	0	0	10	2	0	0	22 (9%)
A1023	1	0	0	1	1	1	1	5 (9%)
M25 S	71	13	0	0	2	0	0	86 (9%)
A12 W	3	3	1	2	0	0	0	8 (9%)
Wigley Bush Ln	0	0	1	0	0	0	0	2 (9%)
Nags Head Ln	0	0	2	0	0	1	0	3 (9%)
Total	84 (9%)	27 (9%)	6 (9%)	91 (9%)	7 (9%)	2 (9%)	2 (9%)	219 (9%)

Table B-5 2022 PM Peak Matrices – Light Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	1,219	313	2,853	458	25	7	4875
A12 E	639	1	121	572	869	10	3	2214
A1023	307	7	0	219	253	57	85	928
M25 S	2,475	960	123	0	470	10	3	4041
A12 W	345	1,058	304	167	7	24	7	1,911
Wigley Bush Ln	50	1	72	36	42	0	28	228
Nags Head Ln	13	0	115	9	11	59	0	207
Total	3,829	3,247	1,047	3,856	2,110	184	132	14,404
2022								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	1,261	321	3,409	565	26	8	5,590
A12 E	736	1	118	651	1,020	10	3	2,540
A1023	305	5	0	214	257	50	81	913
M25 S	2,947	978	124	0	569	11	3	4,632
A12 W	443	1,162	330	212	9	29	10	2,195
Wigley Bush Ln	52	0	63	37	45	0	28	225
Nags Head Ln	14	0	109	10	14	60	0	207
Total	4,497	3,407	1,064	4,534	2,479	187	134	16,302
Difference 2022 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	42	8	556	106	2	2	715 (15%)
A12 E	97	0	-3	79	151	1	1	326 (15%)
A1023	-2	-2	0	-4	4	-6	-4	-15 (-2%)
M25 S	472	18	1	0	99	1	1	591 (15%)
A12 W	98	104	26	45	2	5	3	284 (15%)
Wigley Bush Ln	2	-1	-8	1	3	0	0	-3 (-1%)
Nags Head Ln	2	0	-6	1	3	1	0	0 (0%)
Total	668 (17%)	160 (5%)	17 (2%)	678 (18%)	369 (17%)	4 (2%)	3 (2%)	1,898 (13%)

Table B-6 2022 PM Peak Matrices – Heavy Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	127	8	762	24	1	0	922
A12 E	76	0	1	81	15	0	0	173
A1023	6	1	0	7	4	2	3	23
M25 S	599	87	4	0	15	0	0	705
A12 W	19	21	2	4	0	0	0	46
Wigley Bush Ln	1	0	3	1	1	0	1	7
Nags Head Ln	0	0	5	0	0	2	0	8
Total	701	236	22	855	59	6	5	1,884
2022								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	128	9	834	27	0	0	997
A12 E	82	0	1	88	16	0	0	187
A1023	6	1	0	6	5	4	4	26
M25 S	655	87	4	0	17	0	0	763
A12 W	21	22	2	5	0	0	0	50
Wigley Bush Ln	0	0	4	1	0	0	0	5
Nags Head Ln	0	0	4	0	0	4	0	8
Total	764	238	24	933	64	8	4	2,036
Difference 2022 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	1	1	72	3	-1	0	75 (8%)
A12 E	6	0	0	7	1	0	0	14 (8%)
A1023	0	0	0	-1	1	2	1	3 (12%)
M25 S	56	0	0	0	2	0	0	58 (8%)
A12 W	2	1	0	1	0	0	0	4 (8%)
Wigley Bush Ln	-1	0	1	0	-1	0	-1	-2 (-28%)
Nags Head Ln	0	0	-1	0	0	2	0	0 (3%)
Total	63 (9%)	2 (1%)	2 (9%)	78 (9%)	5 (9%)	2 (38%)	-1 (-18%)	152 (8%)

B.2 2037 Forecast year demand matrices

Table B-7 2037 AM Peak Matrices – Light Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	714	326	2,414	447	26	7	3,935
A12 E	797	4	152	833	1,227	12	3	3,028
A1023	223	24	0	184	261	57	85	835
M25 S	2,334	723	125	0	483	10	3	3,678
A12 W	315	861	207	215	12	16	4	1,631
Wigley Bush Ln	37	4	72	30	43	0	28	213
Nags Head Ln	9	1	115	8	11	59	0	203
Total	3,714	2,332	997	3,684	2,485	180	131	13,523
2037								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	970	341	3,513	642	29	9	5,504
A12 E	914	4	125	944	1,372	11	3	3,373
A1023	234	23	0	193	270	46	78	845
M25 S	3,364	960	128	0	678	11	4	5,146
A12 W	481	1,210	225	324	18	19	5	2,282
Wigley Bush Ln	43	3	59	34	48	0	28	216
Nags Head Ln	12	0	109	10	14	62	0	207
Total	5,047	3,171	987	5,019	3,042	177	127	17,571
Difference 2037 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	255	15	1,099	195	3	2	1,569 (40%)
A12 E	117	0	-27	112	145	-1	0	345 (11%)
A1023	12	-1	0	9	8	-11	-8	10 (1%)
M25 S	1,030	237	3	0	194	1	1	1,467 (40%)
A12 W	165	349	18	109	6	3	1	651 (40%)
Wigley Bush Ln	6	-1	-13	4	6	0	0	3 (1%)
Nags Head Ln	2	-1	-6	3	3	2	0	3 (2%)
Total	1,333 (36%)	839 (36%)	-10 (-1%)	1336 (36%)	557 (22%)	-3 (-2%)	-3 (-3%)	4,049 (30%)

Table B-8 2037 AM Peak – Heavy Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	101	14	694	23	1	0	833
A12 E	111	0	4	107	41	0	0	263
A1023	13	1	0	8	2	2	3	31
M25 S	848	111	1	0	33	0	0	993
A12 W	22	40	9	15	0	1	0	87
Wigley Bush Ln	2	0	3	1	0	0	1	8
Nags Head Ln	1	0	5	0	0	2	0	8
Total	997	253	35	826	100	7	5	2,223
2037								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	127	14	896	28	1	0	1,067
A12 E	117	0	3	112	41	0	0	274
A1023	13	1	0	8	3	4	4	33
M25 S	1,091	139	1	0	41	0	0	1,271
A12 W	29	52	11	20	0	0	0	111
Wigley Bush Ln	3	0	4	1	0	0	0	8
Nags Head Ln	0	0	4	0	0	4	0	8
Total	1,254	318	37	1,038	113	9	4	2,772
Difference 2037 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	26	1	202	5	0	0	234 (28%)
A12 E	6	0	0	5	0	0	0	11 (4%)
A1023	0	0	0	0	1	1	1	3 (9%)
M25 S	243	28	0	0	8	0	0	278 (28%)
A12 W	7	12	1	5	0	-1	0	24 (28%)
Wigley Bush Ln	1	0	1	0	0	0	-1	0 (0%)
Nags Head Ln	-1	0	-1	0	0	2	0	0 (0%)
Total	257 (26%)	65 (26%)	2 (5%)	212 (26%)	13 (13%)	2 (31%)	-1 (-23%)	550 (25%)

Table B-9 2037 Inter-Peak Matrices – Light Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	567	143	1,803	227	11	3	2,754
A12 E	468	1	85	461	460	7	2	1,483
A1023	178	8	0	147	209	49	74	665
M25 S	1,671	557	81	0	123	6	2	2,440
A12 W	222	508	236	94	6	19	5	1,089
Wigley Bush Ln	29	1	62	24	34	0	24	175
Nags Head Ln	7	0	99	6	9	51	0	173
Total	2,576	1,642	706	2,535	1,068	143	109	8,780
2037								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	813	206	2,586	325	16	4	3,950
A12 E	672	1	122	661	660	10	3	2,127
A1023	255	11	0	211	300	70	105	954
M25 S	2,397	799	116	0	177	9	2	3,500
A12 W	318	729	339	134	8	27	7	1,562
Wigley Bush Ln	42	2	88	35	49	0	35	251
Nags Head Ln	11	0	142	9	13	73	0	248
Total	3,695	2,356	1,013	3,636	1,532	205	157	12,593
Difference 2037 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	246	62	783	98	5	1	1,196 (43%)
A12 E	203	0	37	200	200	3	1	644 (43%)
A1023	77	3	0	64	91	21	32	289 (43%)
M25 S	726	242	35	0	54	3	1	1060 (43%)
A12 W	96	221	103	41	3	8	2	473 (43%)
Wigley Bush Ln	13	1	27	11	15	0	10	76 (43%)
Nags Head Ln	3	0	43	3	4	22	0	75 (43%)
Total	1,119 (43%)	713 (43%)	307 (43%)	1,101 (43%)	464 (43%)	62 (43%)	47 (43%)	3,814 (43%)

Table B-10 2037 Inter-Peak Matrices – Heavy Vehicles (Vehicles per Hour)

2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	132	13	900	26	1	0	1,072
A12 E	102	0	4	115	27	0	0	248
A1023	8	2	0	11	9	11	16	57
M25 S	818	144	4	0	19	0	0	984
A12 W	34	30	10	19	0	1	0	94
Wigley Bush Ln	1	0	13	2	2	0	5	24
Nags Head Ln	0	0	22	0	0	11	0	34
Total	964	307	65	1,048	83	24	22	2,513
2037								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	168	17	1,141	33	1	0	1,361
A12 E	129	0	5	146	34	0	0	315
A1023	10	2	0	14	12	13	20	72
M25 S	1,038	182	5	0	24	0	0	1,249
A12 W	43	37	12	24	0	1	0	119
Wigley Bush Ln	2	0	17	2	2	0	7	30
Nags Head Ln	0	0	27	1	0	14	0	43
Total	1,223	390	83	1,329	105	31	28	3,188
Difference 2037 compared with 2014								
Zone	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	36	4	242	7	0	0	288 (27%)
A12 E	27	0	1	31	7	0	0	67 (27%)
A1023	2	0	0	3	2	3	4	15 (27%)
M25 S	220	39	1	0	5	0	0	264 (27%)
A12 W	9	8	3	5	0	0	0	25 (27%)
Wigley Bush Ln	0	0	4	0	0	0	1	6 (27%)
Nags Head Ln	0	0	6	0	0	3	0	9 (27%)
Total	259 (27%)	83 (27%)	18 (27%)	282 (27%)	22 (27%)	6 (27%)	6 (27%)	675 (27%)

Table B-11 2037 PM peak Matrices – Light Vehicles (Vehicles per Hour)

2014								
	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	1,219	313	2,853	458	25	7	4,875
A12 E	639	1	121	572	869	10	3	2,214
A1023	307	7	0	219	253	57	85	928
M25 S	2,475	960	123	0	470	10	3	4,041
A12 W	345	1,058	304	167	7	24	7	1,911
Wigley Bush Ln	50	1	72	36	42	0	28	228
Nags Head Ln	13	0	115	9	11	59	0	207
Total	3,829	3,247	1,047	3,856	2,110	184	132	14,404
2037								
	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	1,114	290	3,982	633	25	9	6,053
A12 E	834	1	115	823	1,238	11	4	3,025
A1023	293	4	0	229	265	44	77	912
M25 S	3,612	1,011	131	0	747	12	4	5,517
A12 W	582	1,287	374	311	13	35	13	2,614
Wigley Bush Ln	52	0	55	42	48	0	28	225
Nags Head Ln	16	0	103	12	16	61	0	207
Total	5,388	3,417	1,067	5,399	2,959	188	135	18,552
Difference 2037 compared with 2014								
	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	-105	-23	1129	175	1	2	1,178 (24%)
A12 E	195	0	-6	251	369	1	1	811 (37%)
A1023	-14	-3	0	11	11	-13	-8	-16 (-2%)
M25 S	1,137	50	8	0	277	2	2	1,476 (37%)
A12 W	237	229	70	144	6	11	6	703 (37%)
Wigley Bush Ln	2	-1	-17	6	6	0	0	-4 (-2%)
Nags Head Ln	3	0	-12	3	5	1	0	0 (0%)
Total	1,559 (41%)	170 (5%)	19 (2%)	1,543 (40%)	849 (40%)	4 (2%)	3 (2%)	4,148 (29%)

Table B-12 2037 PM Peak Matrices – Heavy Vehicles (Vehicles per Hour)

2014								
	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	127	8	762	24	1	0	922
A12 E	76	0	1	81	15	0	0	173
A1023	6	1	0	7	4	2	3	23
M25 S	599	87	4	0	15	0	0	705
A12 W	19	21	2	4	0	0	0	46
Wigley Bush Ln	1	0	3	1	1	0	1	7
Nags Head Ln	0	0	5	0	0	2	0	8
Total	701	236	22	855	59	6	5	1,884
2037								
	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	105	8	933	26	0	0	1,073
A12 E	83	0	1	118	20	0	0	222
A1023	5	1	0	7	5	4	4	26
M25 S	773	103	5	0	22	0	0	903
A12 W	25	25	3	7	0	0	0	59
Wigley Bush Ln	0	0	4	1	0	0	0	5
Nags Head Ln	0	0	4	0	0	4	0	8
Total	886	234	24	1,066	74	8	4	2,297
Difference 2037 compared with 2014								
	M25 N	A12 E	A1023	M25 S	A12 W	Wigley Bush Ln	Nags Head Ln	Total
M25 N	0	-22	0	171	2	-1	0	151 (16%)
A12 E	7	0	0	37	5	0	0	49 (28%)
A1023	0	0	0	0	1	1	1	3 (13%)
M25 S	174	16	1	0	7	0	0	198 (28%)
A12 W	6	4	1	3	0	0	0	13 (28%)
Wigley Bush Ln	-1	0	1	0	-1	0	-1	-2 (-26%)
Nags Head Ln	0	0	-1	0	0	2	0	0 (4%)
Total	185 (26%)	-2 (-1%)	2 (8%)	211 (25%)	15 (26%)	2 (36%)	-1 (-19%)	413 (22%)