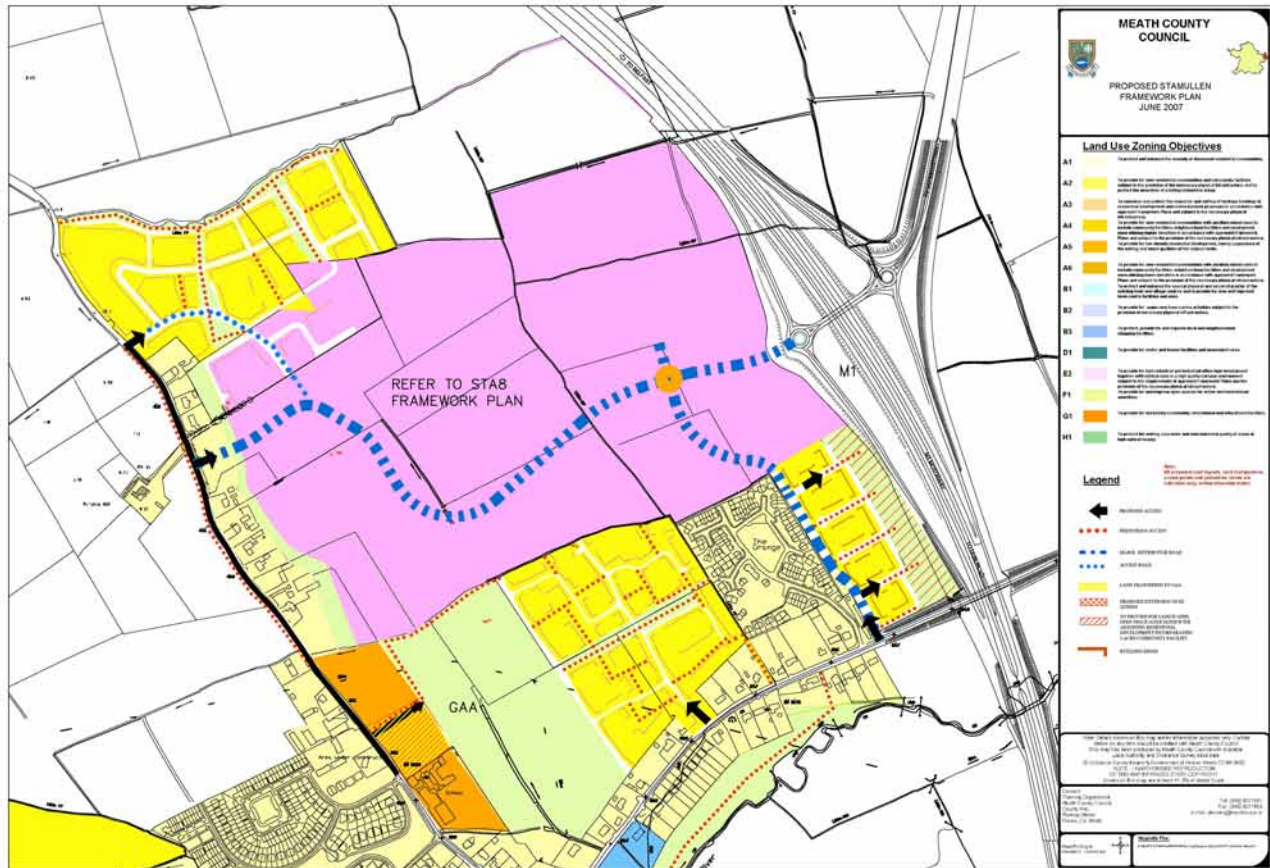


FRAMEWORK DEVELOPMENT PLAN AT STAMULLEN, CO. MEATH



TRAFFIC IMPACT ASSESSMENT REPORT PROJECT S237



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16TH JULY 2007

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MIXED USE DEVELOPMENT AT STAMULLEN, CO. MEATH

TRAFFIC IMPACT ASSESSMENT

PROJECT S237

16TH JULY 2007

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1. INTRODUCTION

- 1.1. O'Connor Sutton Cronin & Associates have undertaken a Traffic Impact Assessment (TIA) for a framework plan for the town of Stamullen, County Meath. The assessment has been carried out in accordance with the Guidelines for Traffic Impact Assessment (1994) as published by the IHT¹.
- 1.2. The development of Stamullen into the future is proposed to be set out in a framework document which will study the feasibility and architecture of future development of the town.
- 1.3. It is necessary to estimate the potential traffic impact on Stamullen as the town expands and existing traffic volumes increase on the existing road network. O'Connor Sutton Cronin & Associates have been commissioned to undertake this TIA to demonstrate the impact of future development generated traffic in Stamullen.
- 1.4. The proposed future development is of mixed use, but is primarily residential around the village core:

Schedule Of Potential Development Works:

McGreevy Lands

160 no. dwellings

Delvin Lodge and Additional Village Developments

240 no. dwellings

Harnan's Lands

325 no. dwellings

¹ The Institution of Highways and Transportation

Land at Harefield

275 no. dwellings

Hotel and Business Park

100 bed Hotel
60,000 sq.m Business Park

Proposed Residential Development Adjacent to M1

Estimate Approximately 100 no. Residential Units

- 1.5. The development falling within the framework plan notionally comprises the following:
 - 1,000 housing units;
 - A 100 bed Hotel;
 - A 60,000 square metre Business Park.
- 1.6. It is proposed to upgrade the existing road infrastructure locally at the Cockhill Road with the inclusion and addition of wider carriageways and footpaths which will increase the capacity of the existing network.
- 1.7. It is also proposed to introduce a new link to Stamullen from the M1 via a grade separated interchange which will link to the Gormanston Road. Introduction of this new access will increase the accessibility of the village and will also provide an easily accessible site for a Hotel and Business Park. Siting of the Hotel and Business Park at this location will minimize the traffic generated by this type of development accessing the village core. Most of the generated traffic will access and egress via the new M1 junction.
- 1.8. In addition, it is also proposed to introduce a new link road from the Interchange to Cockhill Road. This will further increase the capacity of the network and distribute traffic more evenly. The introduction of this link will also serve to promote development of adjacent lands as access to the lands will be achievable off the new link.

2. STUDY METHODOLOGY

- 2.1. As stated earlier the traffic assessment follows the guidelines of the Institution of Highways and Transportation for the preparation of such studies. The following paragraphs outline the methodology followed in the preparation of this assessment.
- 2.2. Baseline traffic counts of the local road network were undertaken on behalf of O'Connor Sutton Cronin & Associates by Abacus Transportation Surveys – see figures and tables in **Appendix A** to the rear of this report.
- 2.3. The locations of the various traffic counts are detailed in **Appendix A**. Fully classified 15-minute interval junction turning counts were carried out at the following junctions:
- **Site 1:** Cockhill Road / Forgehill Junction;
 - **Site 2:** Cockhill Road / Gracemeadow Walk Junction;
 - **Site 3:** Cockhill Road / Orchard Road Junction;
 - **Site 4:** Gormanston Road / Cockhill Road Junction;
 - **Site 5:** Gormanston Road / Elvana Junction;
 - **Site 6:** Gormanston Road / Mountain View Junction;
 - **Site 7:** Roundabout at junction of Gormanston Road, St. Clare's Nursing Home, Navan Road, Bellewstown Road and Kilbreckstown Road
 - **Site 17:** M1 Interchange – West Roundabout
- 2.4. The counts were carried out between the hours of 07:00 to 09:30 and 16:30 to 19:00 on Tuesday 8th November 2005. A fivefold classification system was used as below:
- Cars;
 - Light Goods Vehicles;
 - Heavy Goods Vehicles Type 1;
 - Heavy Goods Vehicles Type 2
 - Buses.
- 2.5. These short term traffic counts were expanded to AADT² using expansion figures from the National Roads Authority's publication RT 201³. The local roads were classified as Urban Commuter Routes.
- 2.6. These values were then adjusted to the year 2007 which is the baseline year for the study. A growth rate of 3.5 % per year was applied to the 2006 traffic figures to bring them up to the 2007 base year.

² Annual Average Daily Traffic

³ RT 201, Expansion Factors for Short Period Traffic Counts; NRA July 1978

- 2.7. These AADT values were then adjusted to the year 2011 which is the predicted opening year for the development. Natural traffic growth on the local network has been assumed as constant at an average growth rate of 3.5 % per year.
- 2.8. In addition to the expansion factor applied to the traffic figures the baseline figures were redistributed through the proposed new infrastructure in an attempt to predict the final traffic volumes on all links and junctions within the study area.
- 2.9. The traffic generation potential of the development (on a daily and peak hour basis) has been assessed using the Trics⁴ planning database. This database contains information on thousands of sites in the British Isles and can be used to predict the traffic that will be generated by various developments. The total number of housing units modelled for the purposes of trip generation calculation is three hundred and fifty six. There is no differentiation between different housetypes.
- 2.10. Following on from the computation of traffic generation the generated traffic was then assigned to the local road network in order to calculate the impact of the development on the road network in the area. The capacity of the network to carry the overall traffic was then calculated and the local junction capacities were assessed using VPicady⁵ and VArcady⁶ priority and signalised junction capacity assessment software.

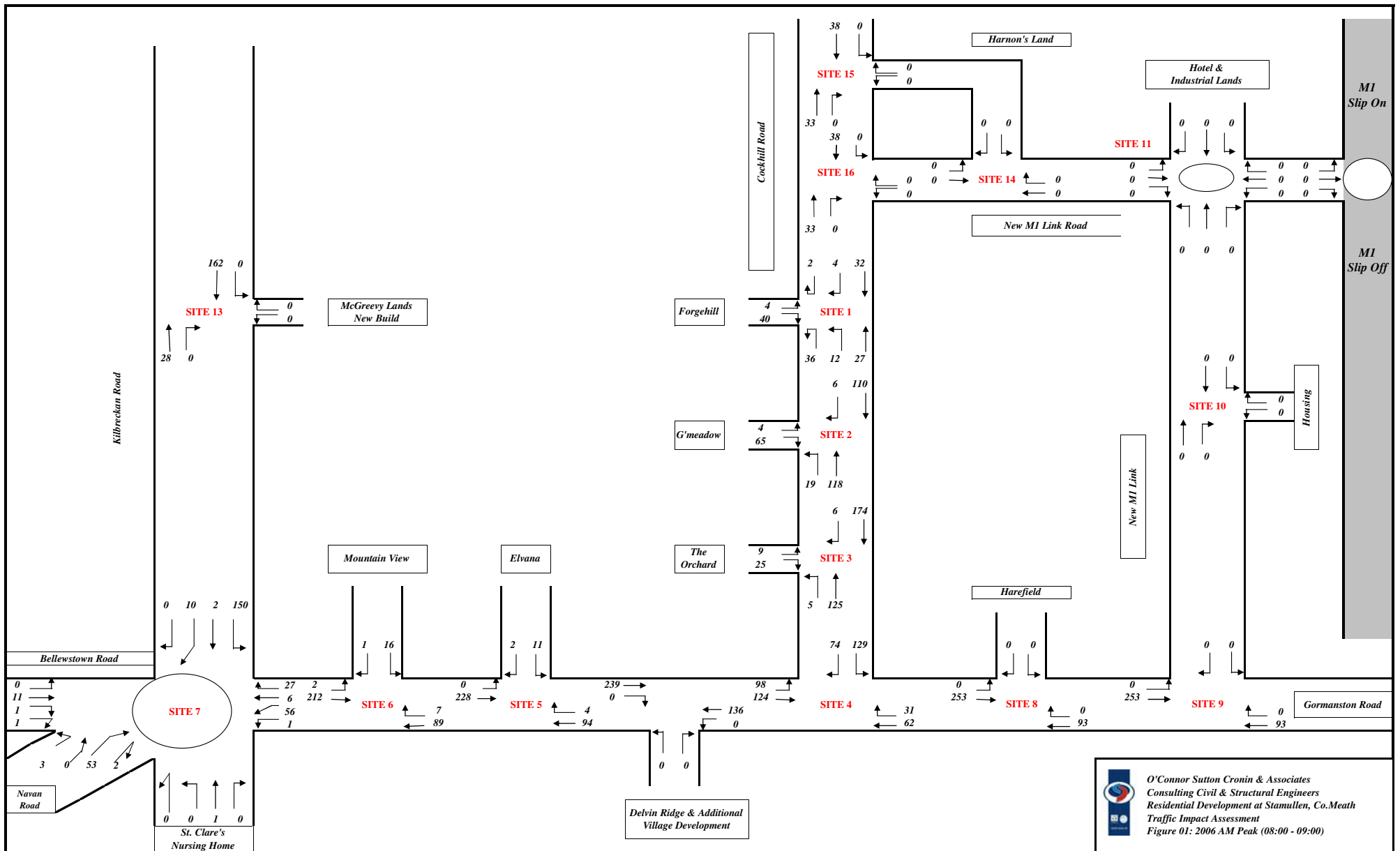
⁴ Trip Rate Information Computer System

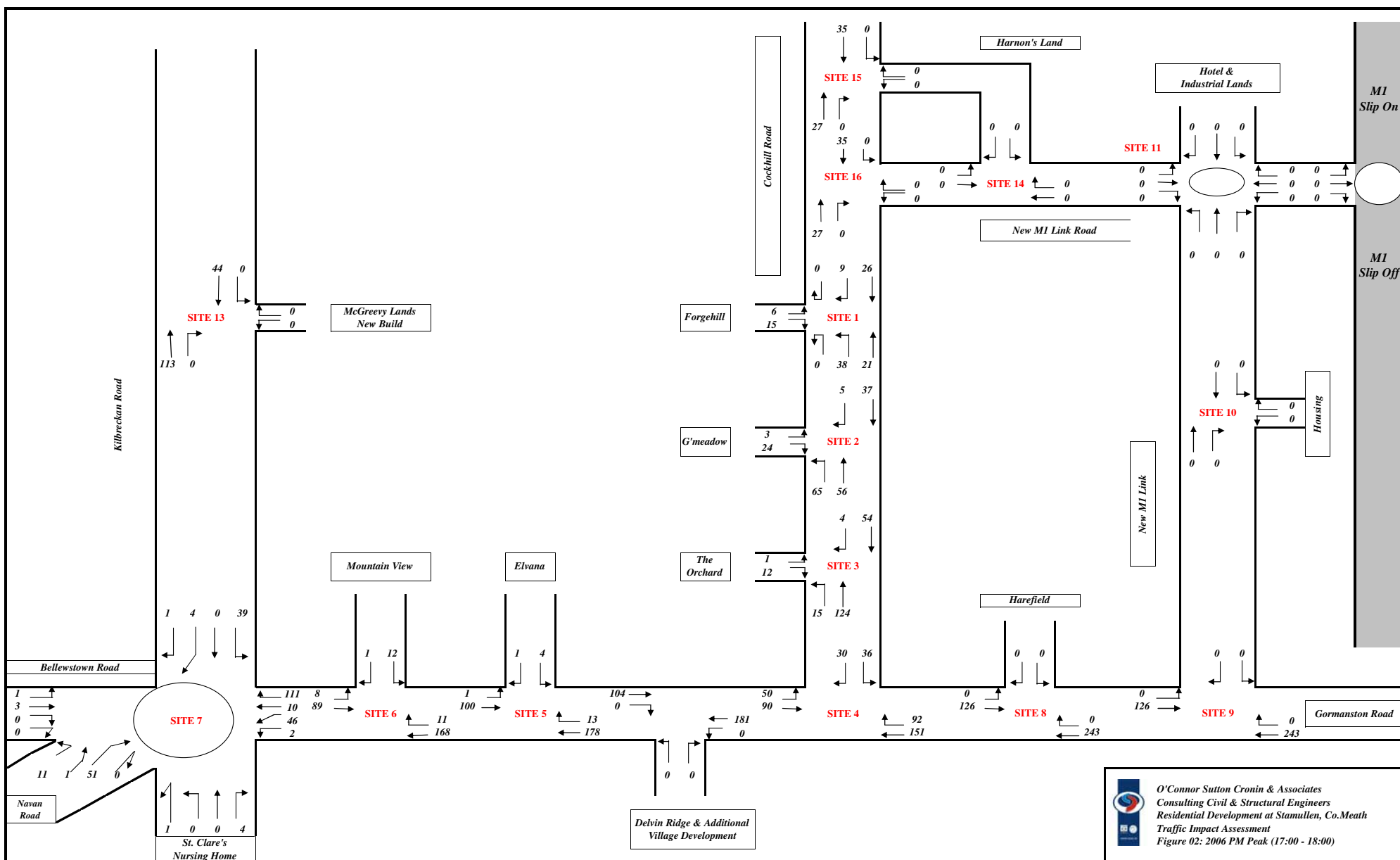
⁵ Visual Priority Intersection Capacity And Delay

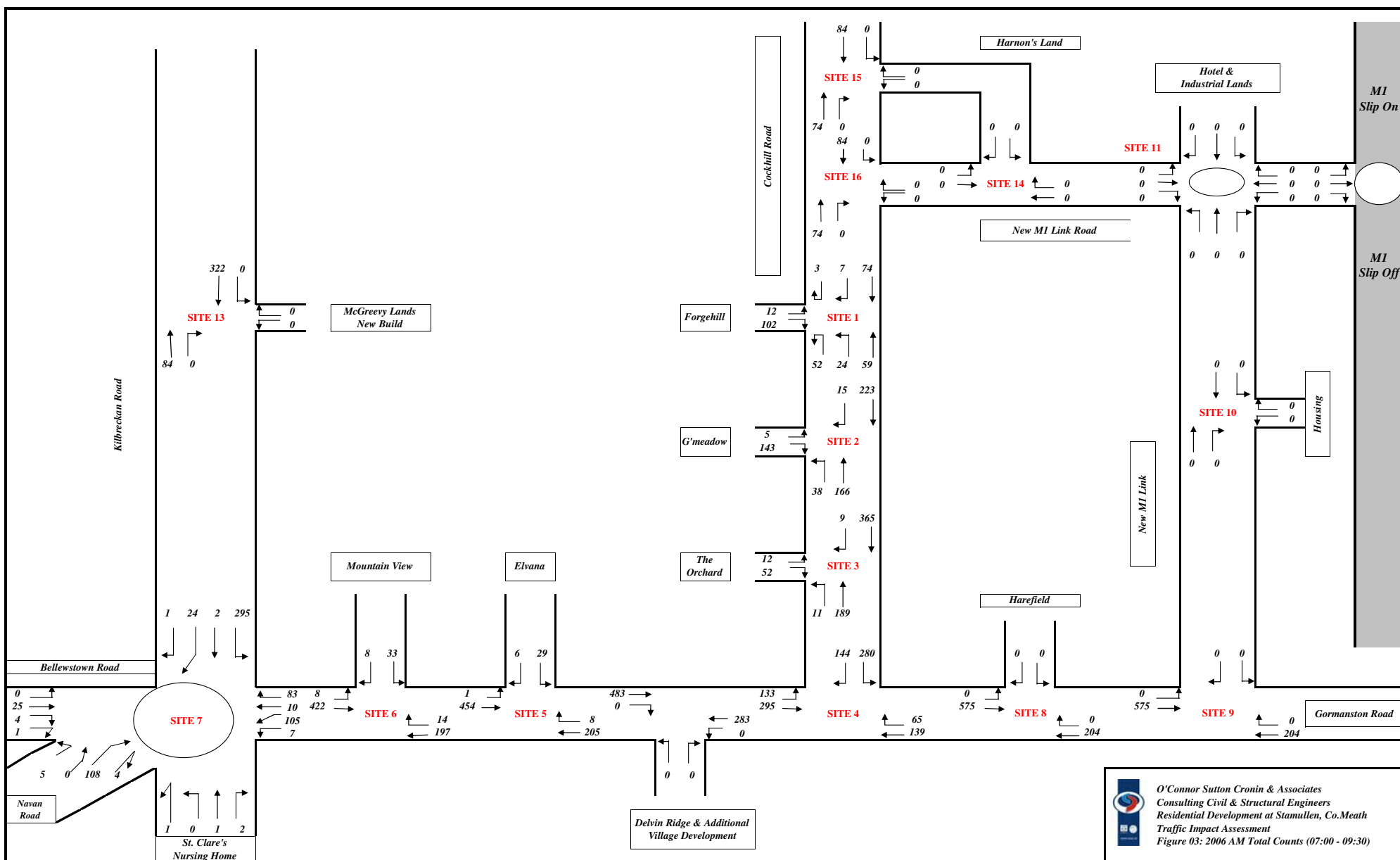
⁶ Visual Assessment of Roundabout Capacity And Delay

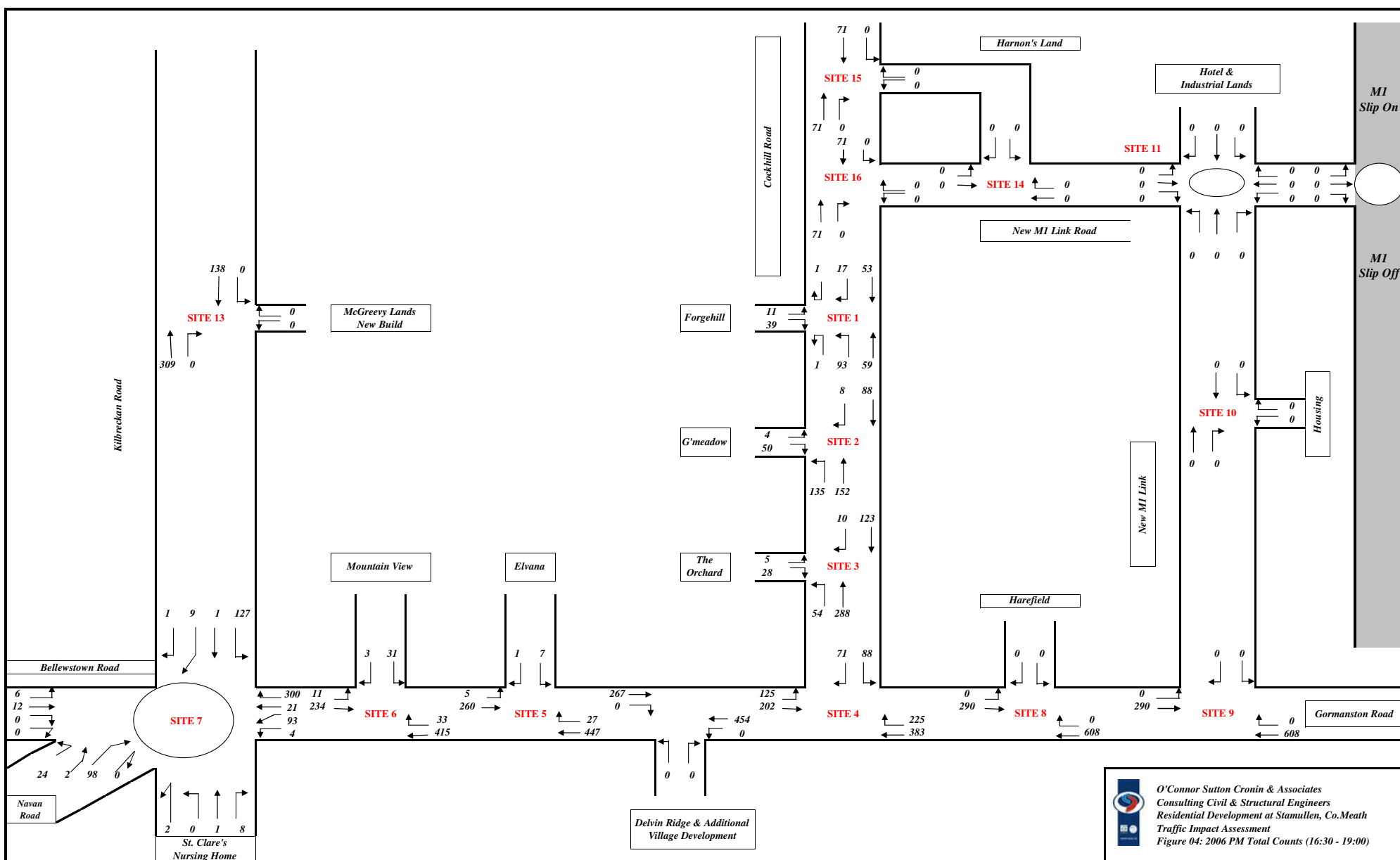
3. THE RECEIVING ENVIRONMENT – TRAFFIC

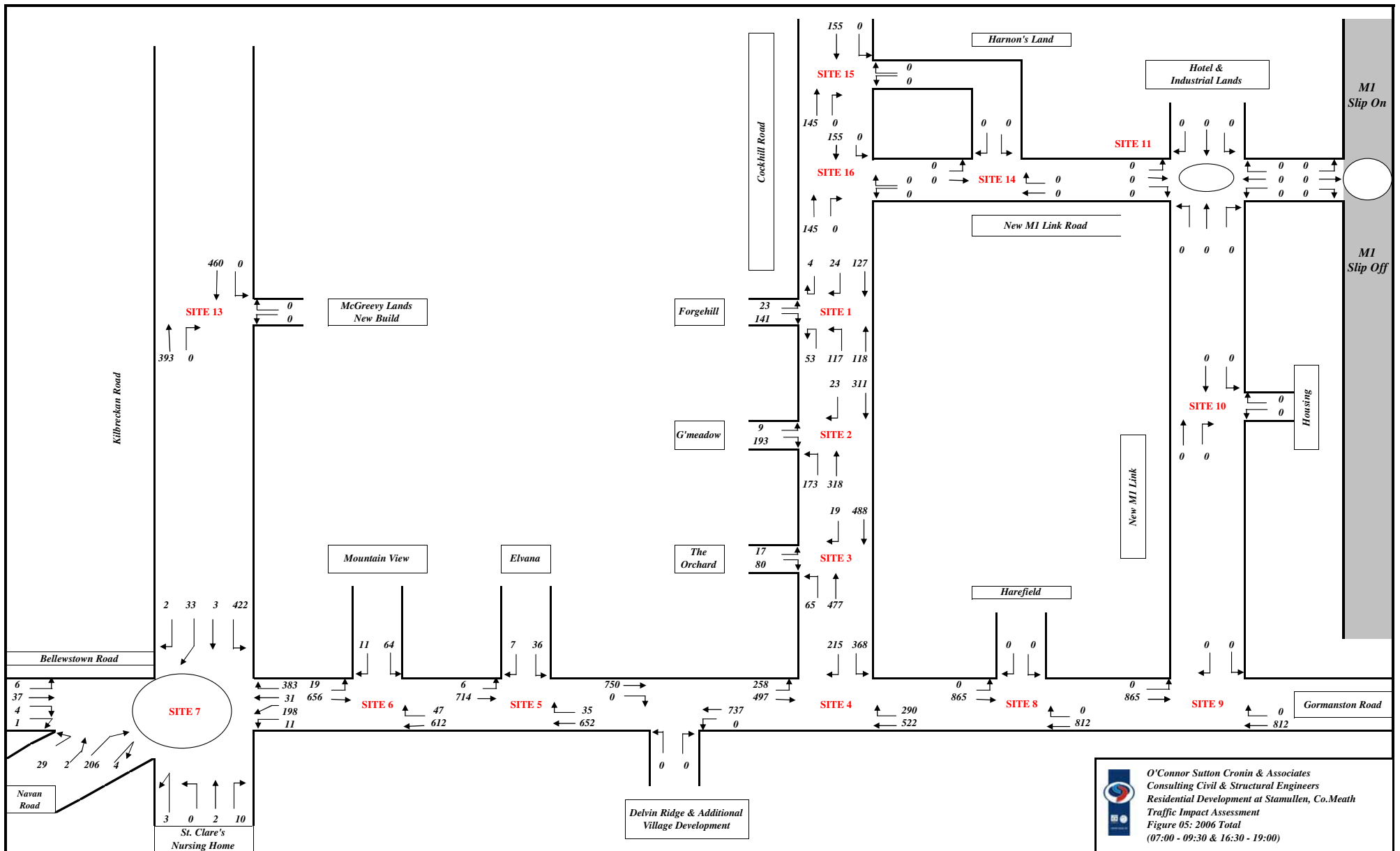
- 3.1. The receiving environment is urban in nature. The main transportation arteries locally are Kilbreckan Road, Gormanston Road and Cockhill Road which carry predominantly commuter traffic.
- 3.2. It is predicted that the majority of the development generated traffic will access the M1 via the proposed new links and journey onward.
- 3.3. The existing junctions are unsignalised junctions.
- 3.4. As noted earlier, baseline traffic levels have been counted on the local network and these are shown on the following figures:
 - **Figure 1**, 2006 A.M. Peak Counts (08:00 – 09:00);
 - **Figure 2**, 2006 P.M. Peak Counts (17:00 – 18:00);
 - **Figure 3**, 2006 A.M. Total Counts (07:00 – 09:30);
 - **Figure 4**, 2006 P.M. Total Counts (16:30 – 19:00);
 - **Figure 5**, 2006 Combined (07:00-09:30 & 16:30-19:00);
 - **Figure 6**, 2006 Annual Average Daily Traffic.
- 3.5. The baseline 2006 traffic levels have been expanded to 2007 on the local network using an expansion factor of 3.5% and these 2007 traffic levels are shown on the following figures:
 - **Figure 7**, 2007 A.M. Peak Counts (08:00 – 09:00);
 - **Figure 8**, 2007 P.M. Peak Counts (17:00 – 18:00);
 - **Figure 9**, 2007 Annual Average Daily Traffic.
- 3.6. The highest a.m. peak flows occur between 08:00 and 09:00 and are as follows:
 - There is a flow of 96 vehicles westbound from the Gormanston direction. Of these vehicles, 32 turn north onto Cockhill Road while 64 continue towards the Navan Road Roundabout. These vehicles are joined by 77 vehicles coming south from Cockhill Road turning right. Approximately two thirds of these vehicles turn towards Navan and the majority of the remainder turn towards Kilbreckan Road.
 - There is a flow of 168 vehicles entering the study area from Kilbreckan Road southbound. 10 turn towards Navan at the Navan Road Roundabout while the majority of the remainder turn left towards Gormanston Road. The traffic is joined by commuter traffic from Mountain View and Elvana housing estates. 101 vehicles then turn left onto Cockhill Road but the majority access Forgehill, Gracemeadow or Forgehill, or perform a u-turn at the school at Forgehill. Only 34 vehicles leave the study area via Cockhill Road. The 128 vehicles that continued past Cockhill Road eastbound towards Gormanston Road are joined by 134 vehicles

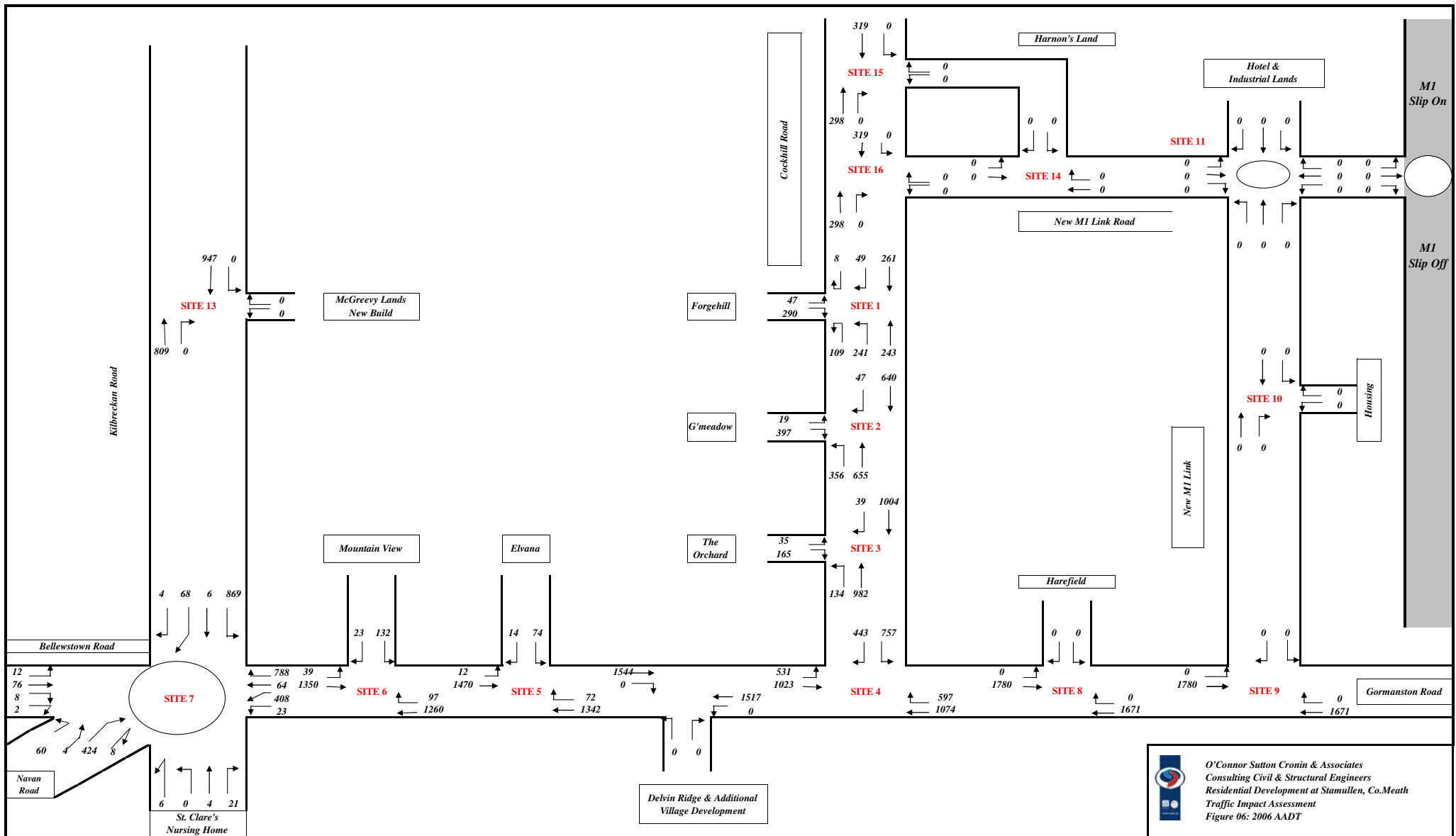


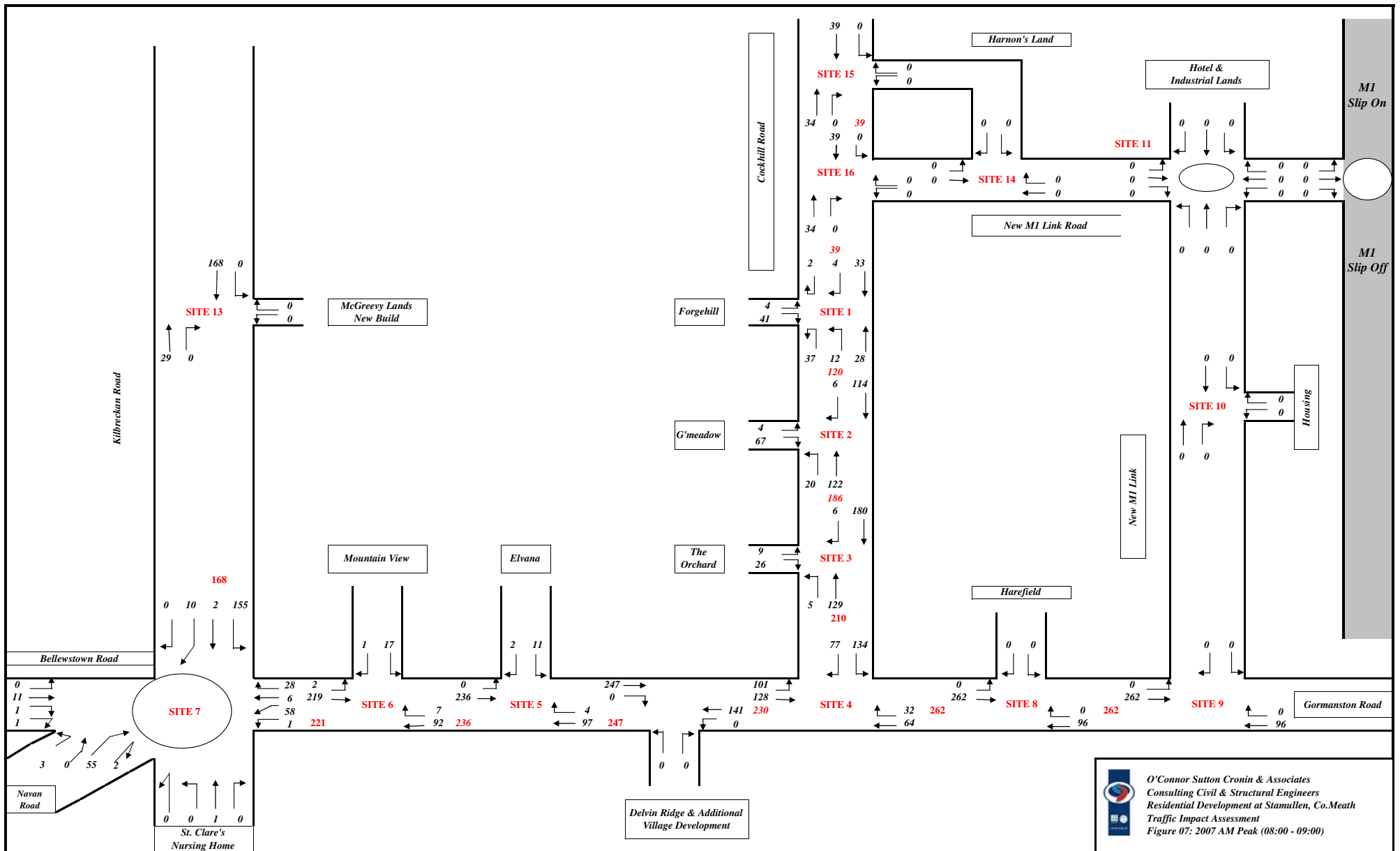


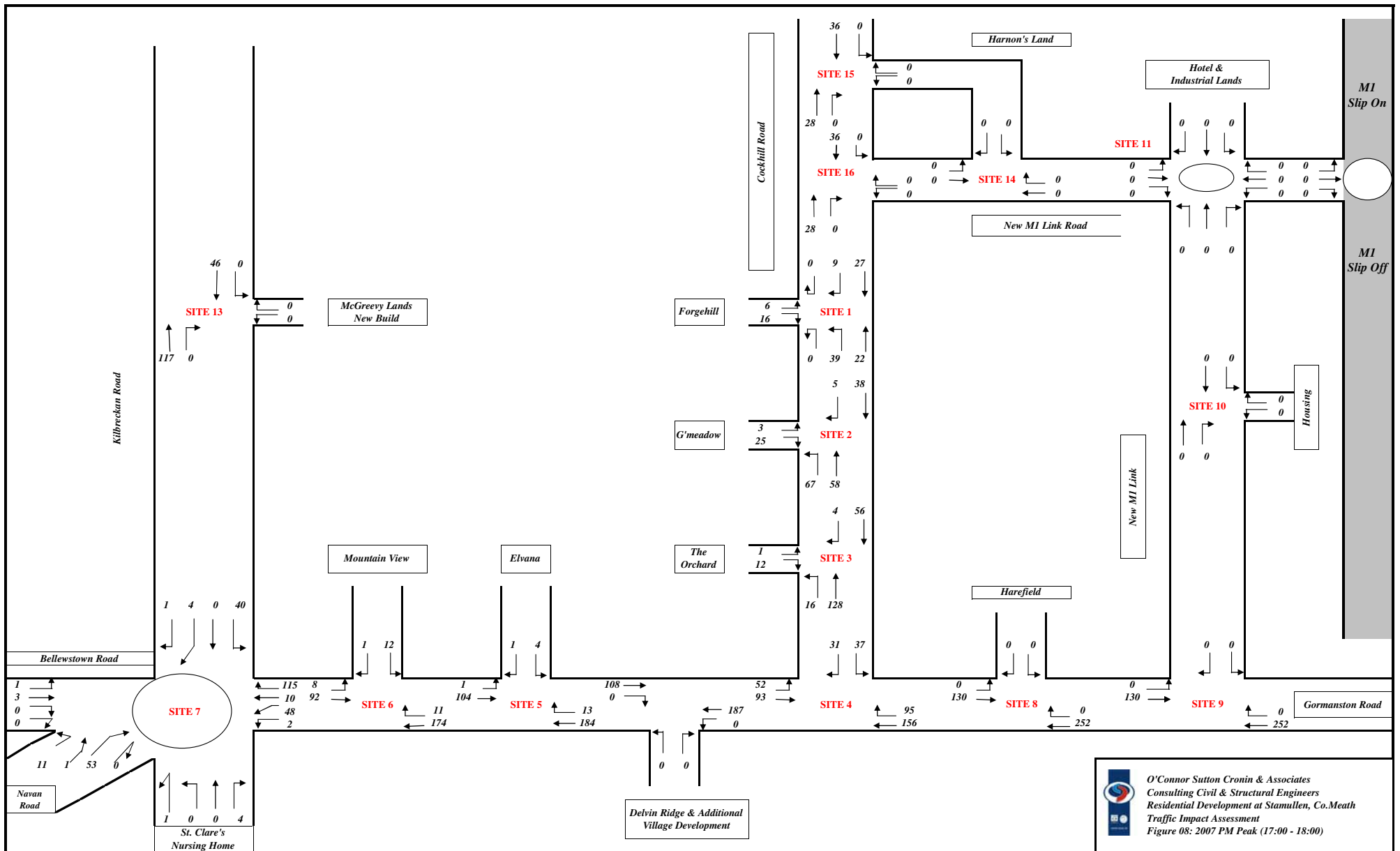


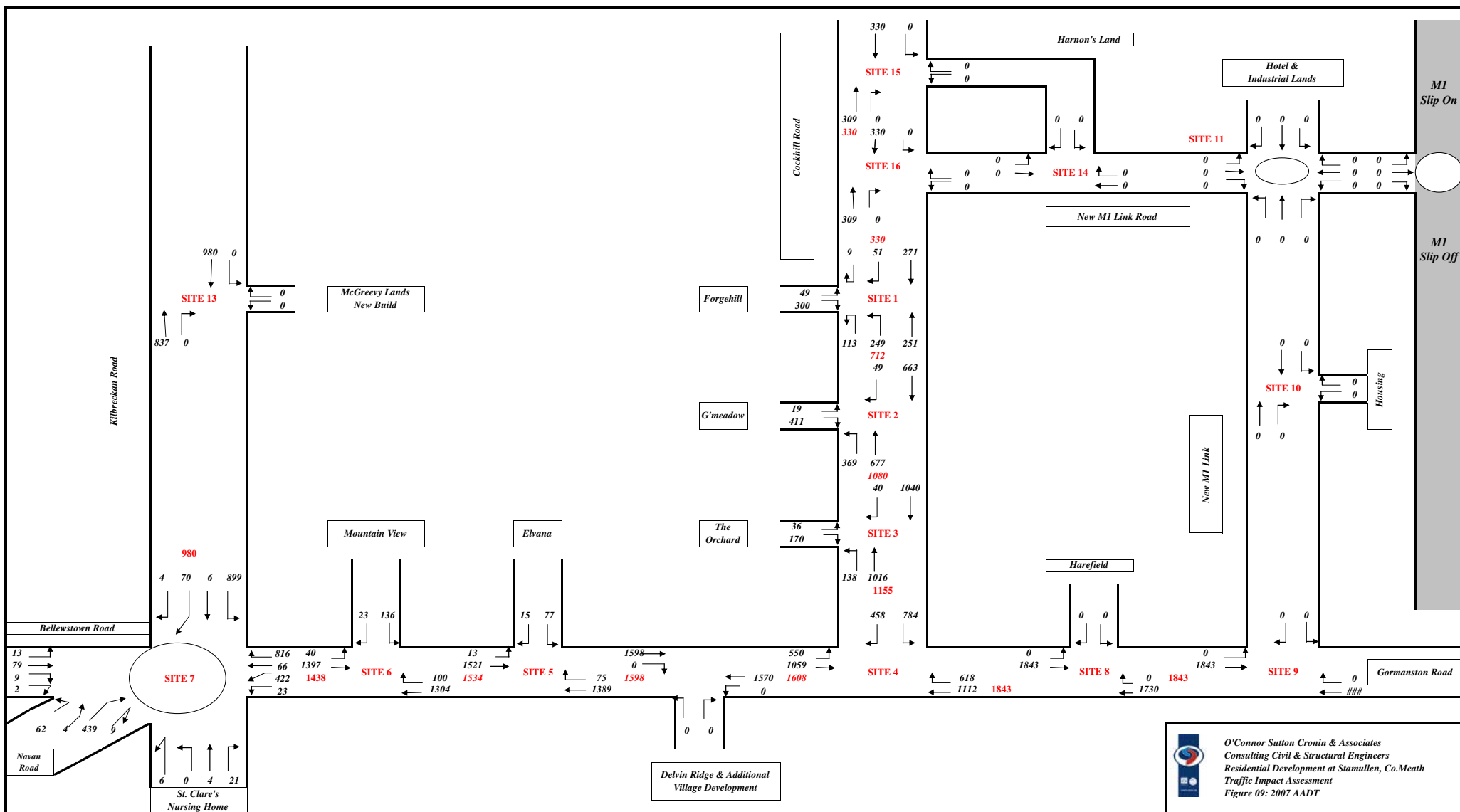












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Figure 09: 2007 AADT

from Cockhill Road southbound, some of which are commuter traffic which have turned at the school.

- 3.7. It can be seen from the traffic count figures recorded that, in the main, the traffic currently generated is commuter which appears to be distributed evenly to the surrounding towns, with slightly more emphasis on the Gormanston Road which accesses further commuter links to Dublin/Drogheda/Dundalk.
- 3.8. The highest p.m. peak flows occur between 17:00 and 18:00 and are as follows:
- There is a flow of 252 vehicles entering the study area from the Gormanston Road westbound. 95 turn north onto Cockhill Road and access the residential areas of Forgehill, Gracemeadow and The Orchard. The remaining continue onwards and 115 turn north onto Kilbreckan Road and leave the study area, while 24 access the residential areas of Mountain View and Elvana. 10 continue through the roundabout towards Bellewstown and 48 turn for Navan.
 - 92 vehicles enter the study area from Navan Road and Kilbreckan Road and are joined by 16 vehicles from Mountain Dew and Elvana as they continue along Gormanston Road. Approximately one third turn north onto Cockhill Road while the remainder leave the study area via Gormanston Road.
- 3.9. It can be seen from the traffic count figures recorded that, in the main, the traffic currently generated is commuter traffic and is accessing residential areas within the study area. The majority of the PM Peak traffic enters the study area from the Gormanston Road westbound.
- 3.10. TA 79/99 “Traffic Capacity of Urban Roads” from the DMRB⁷ provides information on the capacity of urban roads based on classification and width. **Table 1** below shows the capacities of various road types based on this manual and using a 60:40 split in flow.

Carriageway Width (m)		Two Way Single Carriageway – Busiest Direction of Flow (60/40 split)								
		Total Number of lanes								
		2			2 – 3		3	3 – 4	4	4+
		6.10	6.75	7.30	9.00	10.00		12.30	13.50	18.00
Road Type	UM	Not Applicable								
	UAP1	1020	1320	1590	1860	2010	2550	2800	3050	3300
	UAP2	1020	1260	1470	1550	1650	1700	1900	2100	2700
	UAP3	900	1110	1300	1530	1620	*	*	*	*
	UAP4	750	900	1140	1320	1410	*	*	*	*

Table 1: Urban Road Capacities

⁷ Design Manual for Roads and Bridges

- 3.11. The existing roads are classified as urban within the limits of Stamullen village. Some of the other links are classified as rural in nature. However, for the purposes of this report, an urban classification has been applied throughout. This classification will have the effect of providing a more conservative estimate of link and junction capacity.
- 3.12. The links have been classified as UAP 3 in their entirety for the purpose of capacity calculations. Using the above, link capacities can be calculated for the various local network links and current Ratio of Flow to Capacity (RFC) can be assessed as shown in **Table 2** following:

2007 A.M. Peak Flows and Link Capacity				
Link Name	Width (m)	Link Capacity (veh hr⁻¹)	A.M. Peak (veh hr⁻¹)	RFC⁸ (%)
Forgehill Access to Gracemeadow Walk Access	6.1	900	120	13.33%
Gracemeadow Walk Access to Orchard Road Access	6.1	900	186	20.66%
Orchard Road Access to Gormanston Road Junction	6.1	900	210	23.33%
Cockhill Road Junction to Elvana Access	6.1	900	247	27.44%
Elvana Access to Mountain View Access	6.1	900	236	26.22%
Mountain View Access to Navan Road Roundabout	6.1	900	221	24.55%

Table 2: Flow to Capacity Values for Local Network

- 3.13. A standard link width of 6.1 metres has been applied throughout which provides for a more conservative estimate of link capacities.
- 3.14. As can be seen from the above the local network is operating well within capacity. The highest RFC value locally is 21.22% on the Site 4 to Site 5 Link.
- 3.15. Other than the above, average RFC values on the network are in the range of 6.56% to 19.89%.
- 3.16. The 2007 traffic flows for the network have been adjusted to 2009 flows (the predicted opening year for the full development) using an average expansion factor of 3.5 % per annum. The following figures show the predicted traffic flows in 2009 without the proposed development in place:

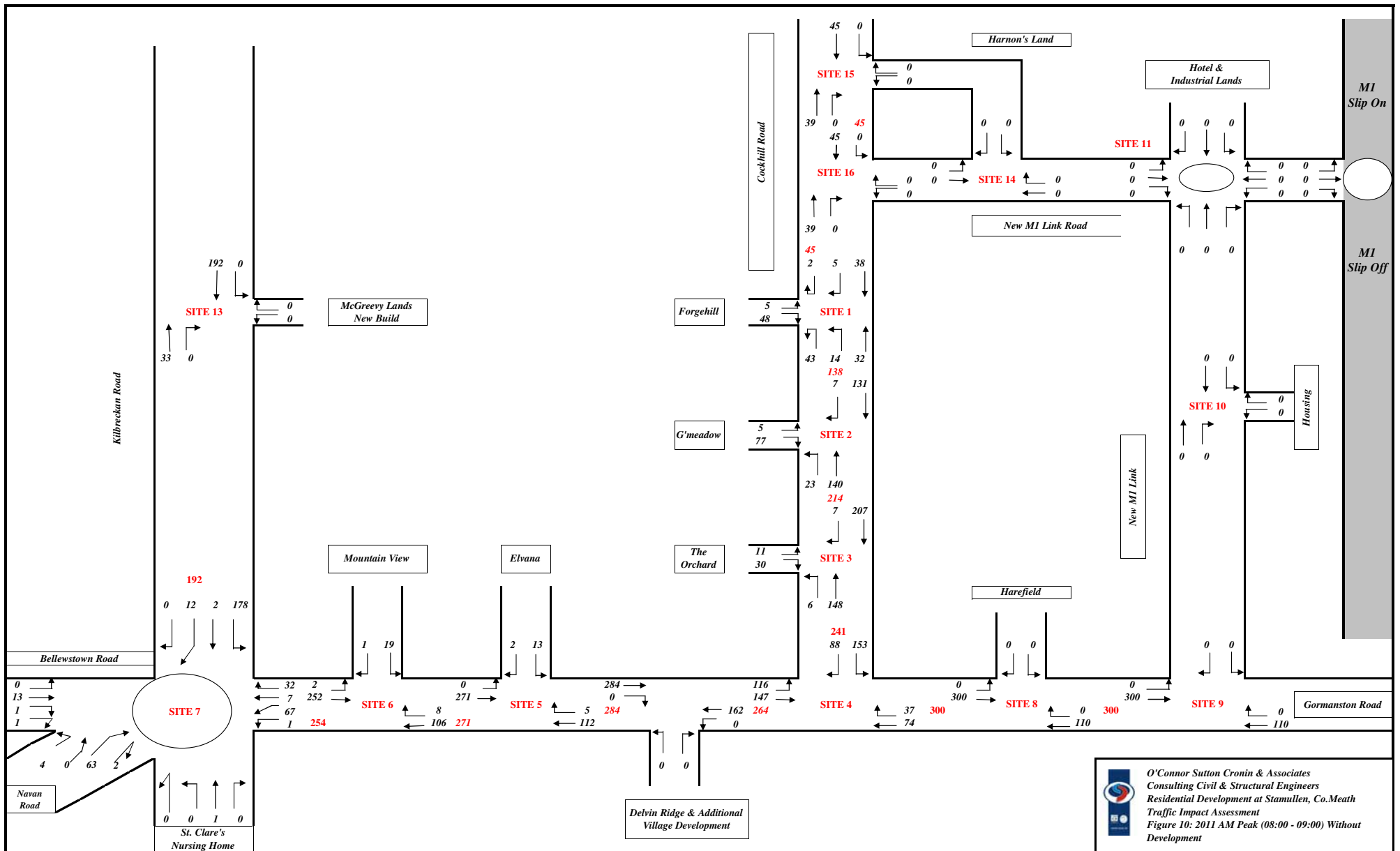
– **Figure 10, 2011 A.M. Peak (08:00 – 09:00) without development;**


⁸ Ratio of Flow to Capacity

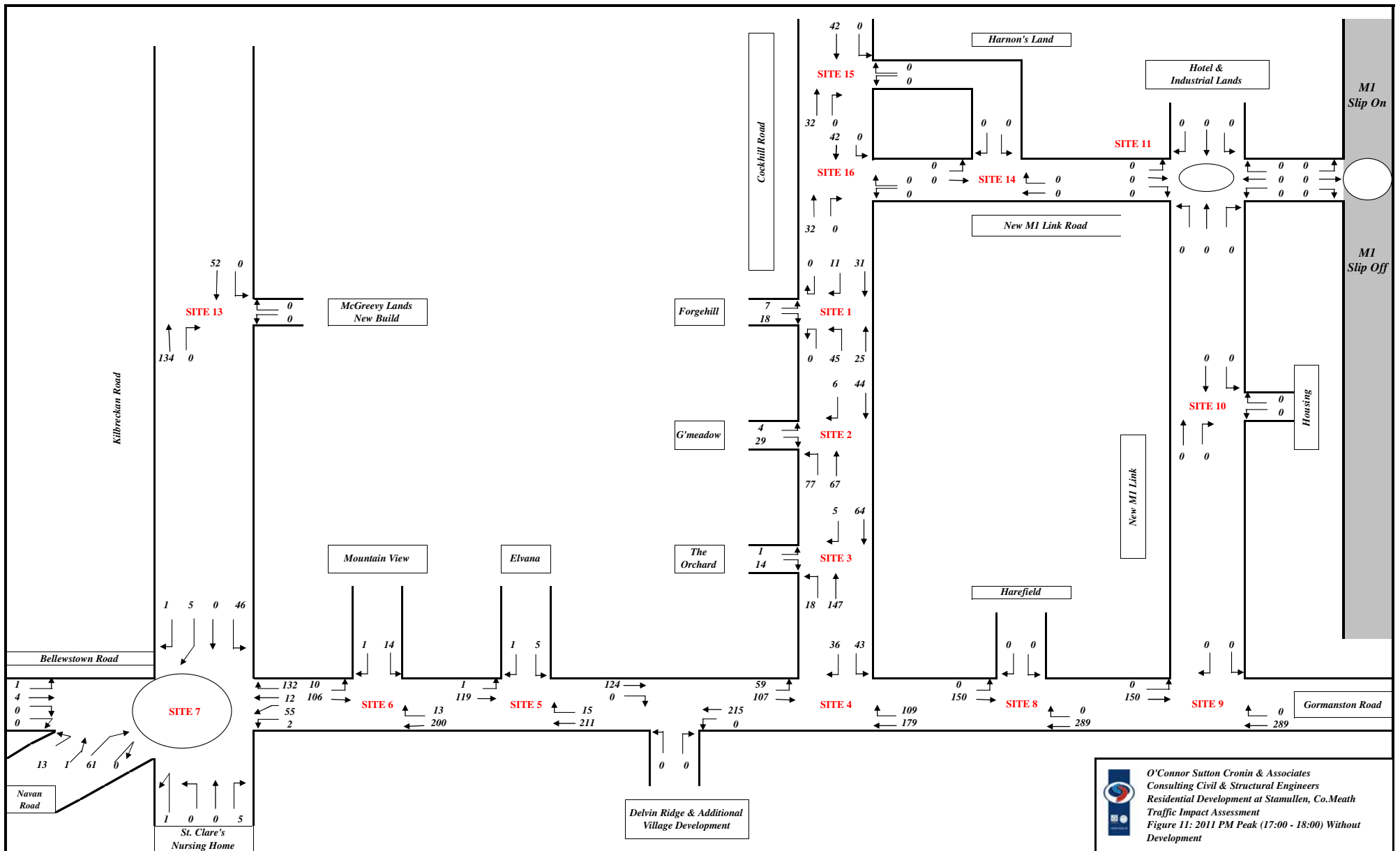
- **Figure 11**, 2011 P.M. Peak (17:00 – 18:00) without development;
- **Figure 12**, 2011 AADT without development.

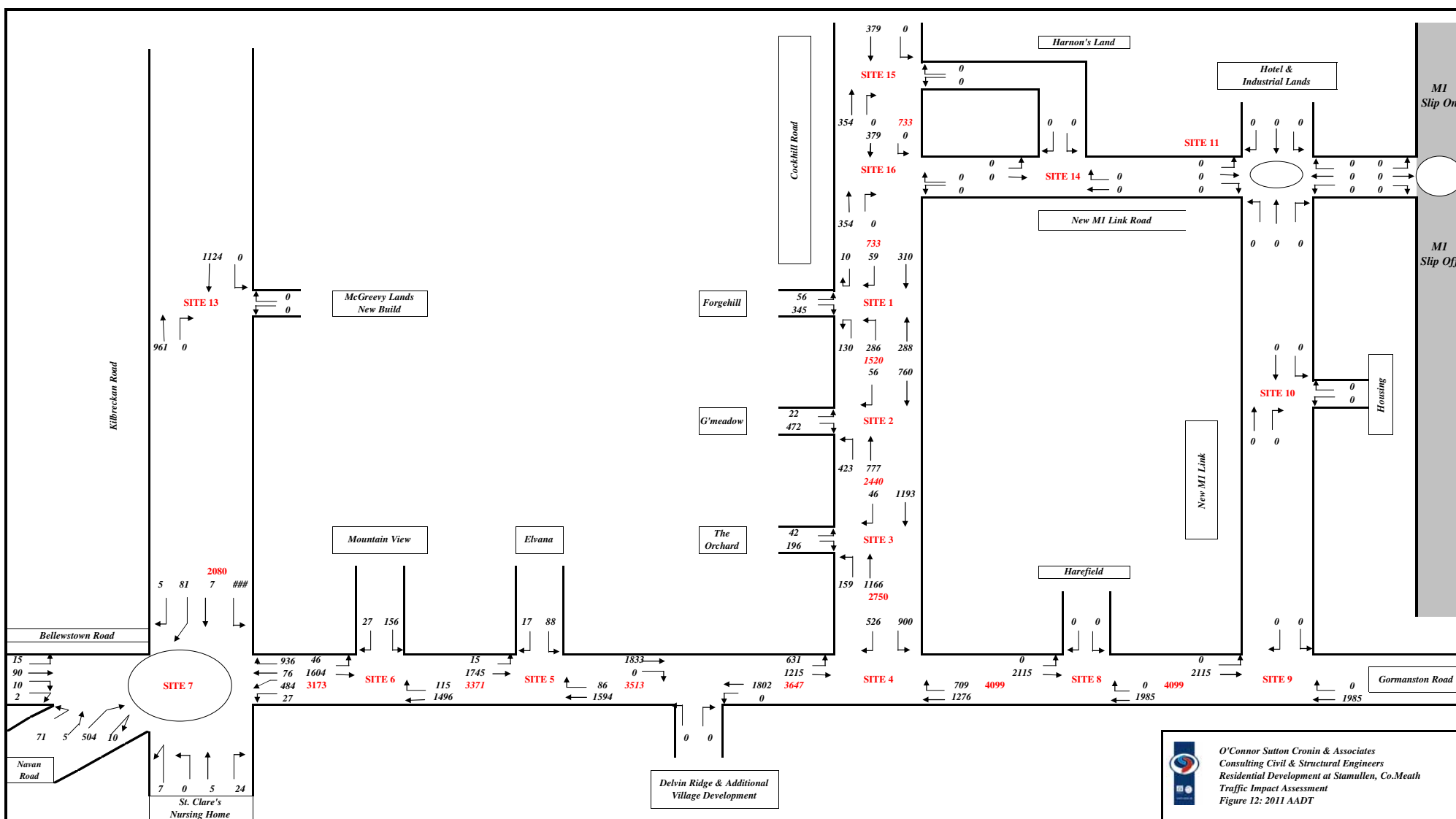
3.17. The 2009 flows have then be redistributed throughout the network based on the proposed new link roads which provide ready access to the M1 Interchange and development lands. The following figures show the predicted redistributed traffic flows in 2009 without the proposed development in place:

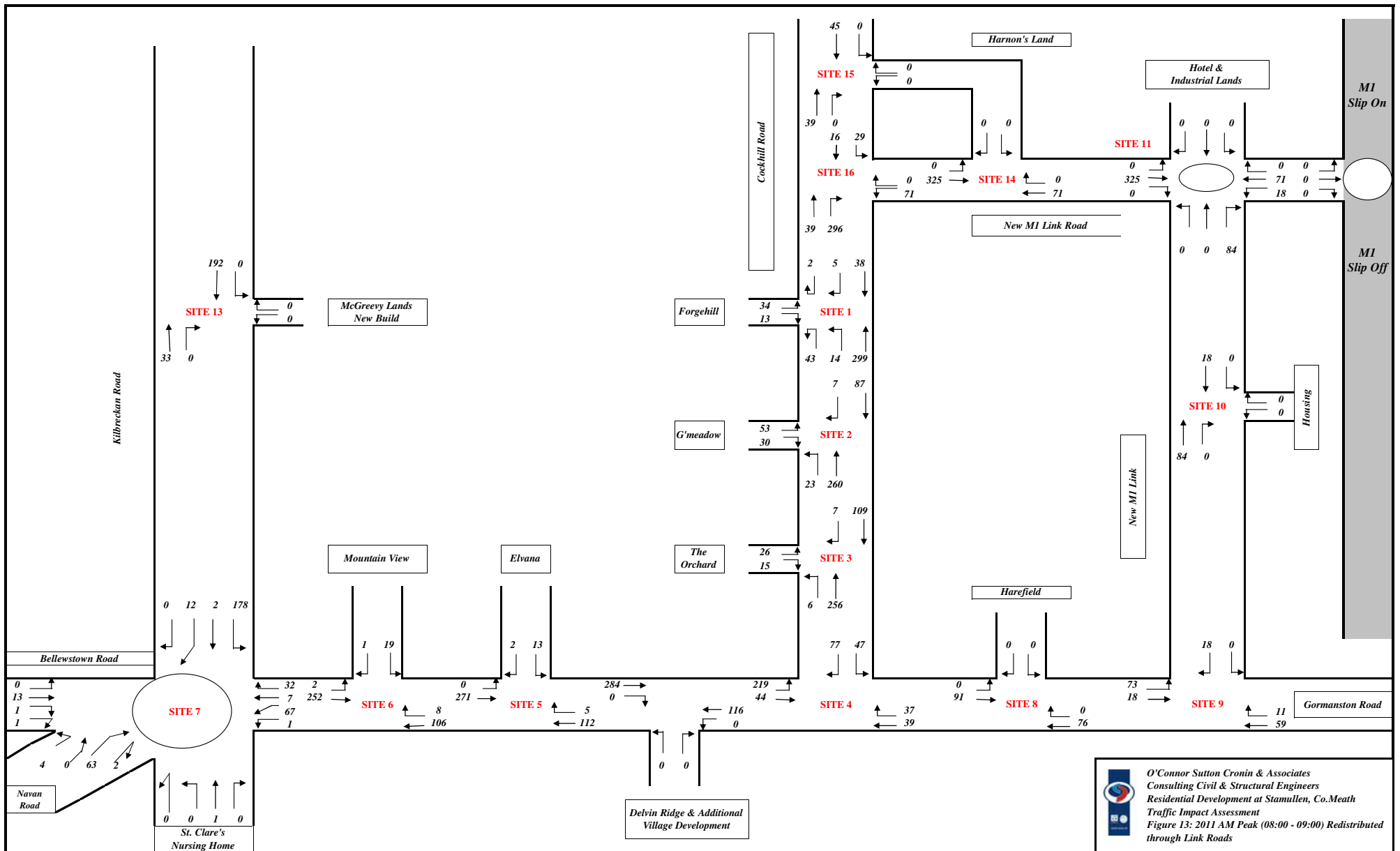
- **Figure 13**, 2011 A.M. Peak (08:00 – 09:00) without development redistributed based on proposed new infrastructure;
- **Figure 14**, 2011 P.M. Peak (17:00 – 18:00) without development redistributed based on proposed new infrastructure;
- **Figure 15**, 2011 AADT without development redistributed based on proposed new infrastructure.

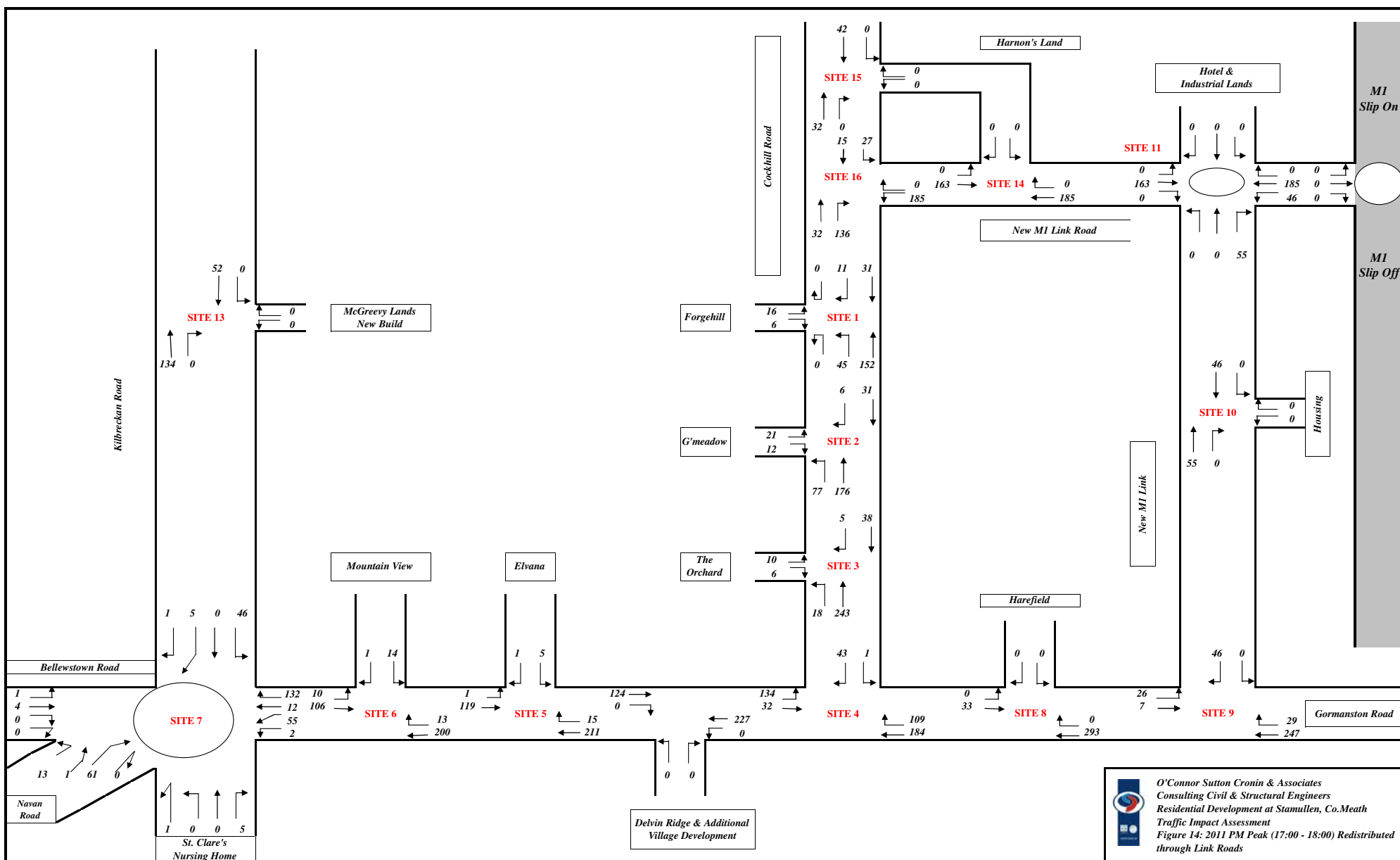


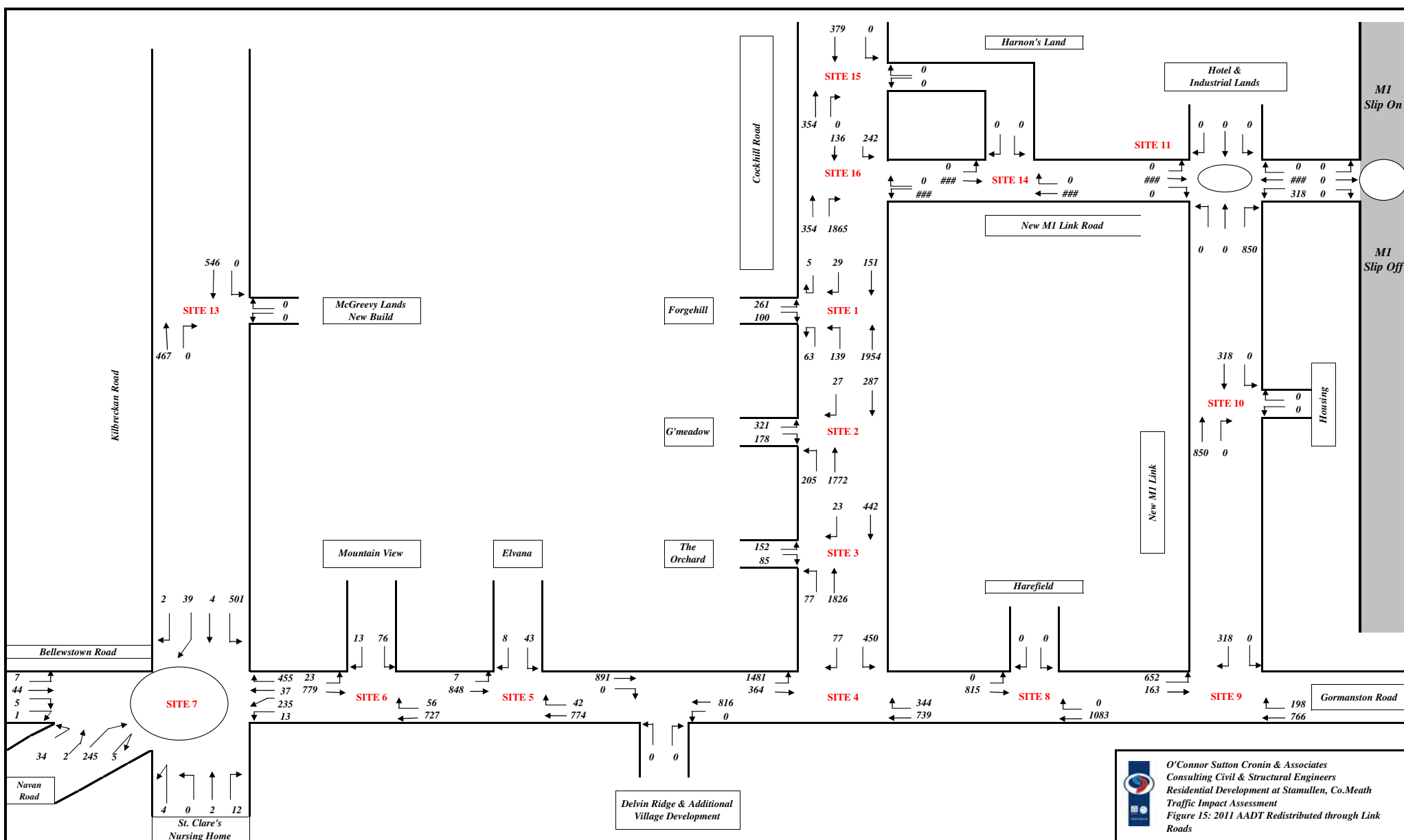

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 Traffic Impact Assessment
 Figure 10: 2011 AM Peak (08:00 - 09:00) Without Development











4. CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

- 4.1. The development of Stamullen into the future is proposed to be set out in a framework document which will study the feasibility and architecture of future development of the town.
- 4.2. It is necessary to estimate the potential traffic impact on Stamullen as the town expands and existing traffic volumes increase on the existing road network. O'Connor Sutton Cronin & Associates have been commissioned to undertake this TIA to demonstrate the impact of future development generated traffic in Stamullen.
- 4.3. The proposed future development is of mixed use, but is primarily residential around the village core and will be dependant on individual future planning applications lodged on the framework lands:

Schedule Of Estimated Future Development Works.

McGreevy Lands

160 no. dwellings;

Delvin Lodge and Additional Village Developments

240 no. dwellings;

Harnan's Lands

325 no. dwellings;

Land at Harefield

275 no. dwellings;

Hotel and Business Park

100 bed Hotel;
60,000 sq.m Business Park.

- 4.4. The development falling within the framework plan comprises in totality:
 - 1,000 housing units;
 - A 100 bed Hotel;
 - A 60,000 square metre Business Park.
- 4.5. As noted earlier, it is proposed to upgrade the existing road infrastructure with the inclusion and addition of wider carriageways and footpaths which will increase the capacity of the existing network.

- 4.6. It is also proposed to introduce a new link to Stamullen from the M1 via a grade separated interchange which will link to the Gormanston Road. Introduction of this new access will increase the accessibility of the village and will also provide an easily accessible site for a Hotel and Business Park. Siting of the Hotel and Business Park at this location will minimize the traffic generated by this type of development accessing the village core. Most of the generated traffic will access and egress via the new M1 junction.
- 4.7. The development when entirely completed will generate approximately 7,711 arrivals and 7,729 departures per day – see **Tables 3, 4, 5, 6 and 7 Trip Generation** which detail the estimated generated traffic for the various notional developments.
- 4.8. During the a.m. peak hour of 08:00 – 09:00 the development generates 877 arrivals and 561 departures (total 1,438 trips) whilst during the p.m. peak hour of 17:00 – 18:00 it generates some 591 arrivals and 765 departures (total 1,356 trips).

5. THE POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT

5.1. PREDICTED IMPACT OF CONSTRUCTION

5.1.1. It is likely that the construction of the entire development will take place over a period of 48 months from the commencement of construction. In general however the impact of the construction period will be temporary in nature.

5.1.2. Construction traffic will consist of the following categories:

- private vehicles owned and driven by site construction staff and by full time site supervisory staff;
- ditto occasional professional supervisory staff i.e. design team members and supervisory staff from Utility Companies;
- excavation plant and dumper trucks involved in site development works and materials delivery vehicles for inter alia the following:
 - granular fill materials;
 - concrete pipes, manholes, ironwork;
 - watermains, sewers, ducts;
 - kerbing, paving, road surfacing materials;
 - readymix concrete and mortar;
 - concrete blocks, roof tiles etc.;
 - miscellaneous building materials.

5.1.3. It is difficult to assess the exact impact of traffic during the construction period however the following estimates have been made in respect of the construction period impacts:

- approximately 40 trips will be generated per day by private vehicles accessing the sites;
- appropriate on site parking and compounding will be provided to prevent overflow onto the local network;
- it is likely further that numbers of construction staff will be brought to the site in vans/minibuses which will serve to reduce the trip generation potential of the construction period;
- during the period of excavation and disposal off site it is likely that up to 150 truck trips will be generated by vehicles removing unsuitable spoil from the site;
- materials deliveries for construction on site, including roads, car parks and structural frame will generate of the order of a further 20 trips per day;
- average deliveries of other building materials including blockwork, brickwork, kerbing etc. will amount to of the order of 10 truck trips per day over the length of the construction period;

- the overall average number of truck trips is expected to be 20-25 per day and the number of private vehicle trips is expected to be 40 per day.
- 5.1.4. A Construction Traffic Management Plan will be agreed with Meath County Council for each of the individual development sites prior to the commencement of construction. This plan will include details on the following:
- daily and weekly working hours;
 - agreed haul routes for incoming materials;
 - agreed haul routes for removal of spoil from the site;
 - licensed hauliers to be used;
 - disposal sites;
 - travel arrangements for construction personnel;
 - appropriate on site parking arrangements for construction personnel to prevent overspill parking on the public road;
 - temporary construction entrances to be provided;
 - wheel wash facilities;
 - road cleaning and sweeping measures to be put in place;
 - temporary construction signage to be put in place and maintained;
 - any proposed traffic management measures such as temporary traffic lights and signage on any public roads.

5.2. PREDICTED IMPACT OF OPERATION

- 5.2.1. In order to calculate the traffic impact of the operational phase of the development it has been necessary to calculate the trip generation that will be brought about by the operational phase of the development. As stated earlier this has been modelled using the Trics database. **Tables 3, 4, 5, 6, 7 and 8** show the daily trip generation calculations for each of the individual notional developments.

Time Range	McGreevy Lands		Total Trips Generated	
	Houses			
	160			
	Arrivals	Departures	Arrivals	Departures
00:00-01:00	8.00	4.80	8	5
01:00-02:00	4.80	4.80	5	5
02:00-03:00	1.60	1.60	2	2
03:00-04:00	1.60	1.60	2	2
04:00-05:00	1.60	3.20	2	3
05:00-06:00	3.20	8.00	3	8
06:00-07:00	8.00	20.80	8	21
07:00-08:00	16.00	56.00	16	56
08:00-09:00	26	66	26	66
09:00-10:00	30.40	40.00	30	40
10:00-11:00	32.00	38.40	32	38
11:00-12:00	36.80	38.40	37	38
12:00-13:00	41.60	41.60	42	42
13:00-14:00	38.40	41.60	38	42
14:00-15:00	44.80	36.80	45	37
15:00-16:00	54.40	41.60	54	42
16:00-17:00	62.40	40.00	62	40
17:00-18:00	69	42	69	42
18:00-19:00	59.20	48.00	59	48
19:00-20:00	49.60	40.00	50	40
20:00-21:00	38.40	30.40	38	30
21:00-22:00	27.20	20.80	27	21
22:00-23:00	17.60	11.20	18	11
23:00-24:00	11.20	6.40	11	6
Daily Trip Rates:	683	683	683	683

Table 3: Estimated Generated Traffic for McGreevy Lands Development

Time Range	Delvin Ridge		Total Trips Generated	
	Houses			
	240			
	Arrivals	Departures	Arrivals	Departures
00:00-01:00	12.00	7.20	12	7
01:00-02:00	7.20	7.20	7	7
02:00-03:00	2.40	2.40	2	2
03:00-04:00	2.40	2.40	2	2
04:00-05:00	2.40	4.80	2	5
05:00-06:00	4.80	12.00	5	12
06:00-07:00	12.00	31.20	12	31
07:00-08:00	24.00	84.00	24	84
08:00-09:00	38	98	38	98
09:00-10:00	45.60	60.00	46	60
10:00-11:00	48.00	57.60	48	58
11:00-12:00	55.20	57.60	55	58
12:00-13:00	62.40	62.40	62	62
13:00-14:00	57.60	62.40	58	62
14:00-15:00	67.20	55.20	67	55
15:00-16:00	81.60	62.40	82	62
16:00-17:00	93.60	60.00	94	60
17:00-18:00	103	62	103	62
18:00-19:00	88.80	72.00	89	72
19:00-20:00	74.40	60.00	74	60
20:00-21:00	57.60	45.60	58	46
21:00-22:00	40.80	31.20	41	31
22:00-23:00	26.40	16.80	26	17
23:00-24:00	16.80	9.60	17	10
Daily Trip Rates:	1025	1025	1025	1025

Table 4: Estimated Generated Traffic for Devlin Ridge Development

Time Range	Harnan's Lands		Total Trips Generated	
	Houses			
	325			
	Arrivals	Departures	Arrivals	Departures
00:00-01:00	16.25	9.75	16	10
01:00-02:00	9.75	9.75	10	10
02:00-03:00	3.25	3.25	3	3
03:00-04:00	3.25	3.25	3	3
04:00-05:00	3.25	6.50	3	7
05:00-06:00	6.50	16.25	7	16
06:00-07:00	16.25	42.25	16	42
07:00-08:00	32.50	113.75	33	114
08:00-09:00	52.00	133.25	52	133
09:00-10:00	61.75	81.25	62	81
10:00-11:00	65.00	78.00	65	78
11:00-12:00	74.75	78.00	75	78
12:00-13:00	84.50	84.50	85	85
13:00-14:00	78.00	84.50	78	85
14:00-15:00	91.00	74.75	91	75
15:00-16:00	110.50	84.50	111	85
16:00-17:00	126.75	81.25	127	81
17:00-18:00	140	85	140	85
18:00-19:00	120.25	97.50	120	98
19:00-20:00	100.75	81.25	101	81
20:00-21:00	78.00	61.75	78	62
21:00-22:00	55.25	42.25	55	42
22:00-23:00	35.75	22.75	36	23
23:00-24:00	22.75	13.00	23	13
Daily Trip Rates:	1388	1388	1388	1388

Table 5: Estimated Generated Traffic for Harnan's Lands Development

Time Range	Harefield		Total Trips Generated	
	Houses			
	275			
	Arrivals	Departures	Arrivals	Departures
00:00-01:00	13.75	8.25	14	8
01:00-02:00	8.25	8.25	8	8
02:00-03:00	2.75	2.75	3	3
03:00-04:00	2.75	2.75	3	3
04:00-05:00	2.75	5.50	3	6
05:00-06:00	5.50	13.75	6	14
06:00-07:00	13.75	35.75	14	36
07:00-08:00	27.50	96.25	28	96
08:00-09:00	44.00	112.75	44	113
09:00-10:00	52.25	68.75	52	69
10:00-11:00	55.00	66.00	55	66
11:00-12:00	63.25	66.00	63	66
12:00-13:00	71.50	71.50	72	72
13:00-14:00	66.00	71.50	66	72
14:00-15:00	77.00	63.25	77	63
15:00-16:00	93.50	71.50	94	72
16:00-17:00	107.25	68.75	107	69
17:00-18:00	118.25	71.50	118	72
18:00-19:00	101.75	82.50	102	83
19:00-20:00	85.25	68.75	85	69
20:00-21:00	66.00	52.25	66	52
21:00-22:00	46.75	35.75	47	36
22:00-23:00	30.25	19.25	30	19
23:00-24:00	19.25	11.00	19	11
Daily Trip Rates:	1177.00	1168.75	1177	1169

Table 6: Estimated Generated Traffic for Harefield Development

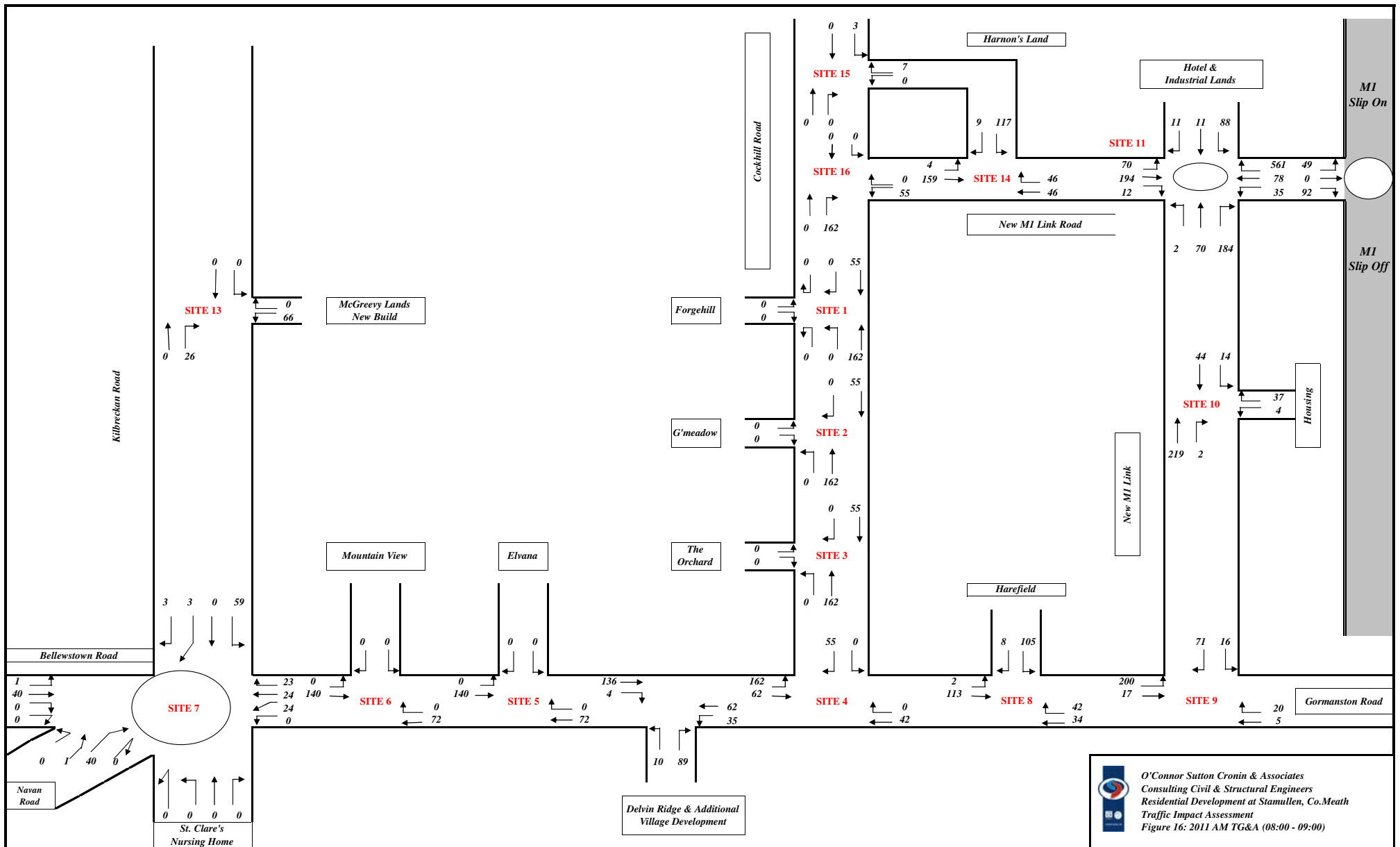
Time Range	Hotel Rate/Room		Business Park/100m ²		Total Trips Generated	
	100		600			
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
00:00-01:00	7.00	7.00	0.00	0.00	7	7
01:00-02:00	3.00	2.00	0.00	0.00	3	2
02:00-03:00	1.00	0.00	0.00	0.00	1	0
03:00-04:00	1.00	1.00	0.00	0.00	1	1
04:00-05:00	0.00	0.00	0.00	0.00	0	0
05:00-06:00	1.00	2.00	12.00	0.00	13	2
06:00-07:00	5.00	5.00	84.00	36.00	89	41
07:00-08:00	12.00	10.00	270.00	60.00	282	70
08:00-09:00	23	20	678	90	701	110
09:00-10:00	27.00	20.00	312.00	108.00	339	128
10:00-11:00	22.00	22.00	138.00	108.00	160	130
11:00-12:00	24.00	23.00	126.00	126.00	150	149
12:00-13:00	31.00	26.00	162.00	270.00	193	296
13:00-14:00	29.00	31.00	246.00	192.00	275	223
14:00-15:00	29.00	32.00	150.00	132.00	179	164
15:00-16:00	28.00	33.00	96.00	132.00	124	165
16:00-17:00	31.00	33.00	96.00	234.00	127	267
17:00-18:00	34	29	84	450	118	479
18:00-19:00	34.00	31.00	42.00	390.00	76	421
19:00-20:00	31.00	30.00	36.00	144.00	67	174
20:00-21:00	25.00	26.00	24.00	60.00	49	86
21:00-22:00	17.00	26.00	12.00	30.00	29	56
22:00-23:00	19.00	26.00	0.00	12.00	19	38
23:00-24:00	9.00	18.00	0.00	6.00	9	24
Daily Trip Rates:	443	453	2568	2580	3011	3033

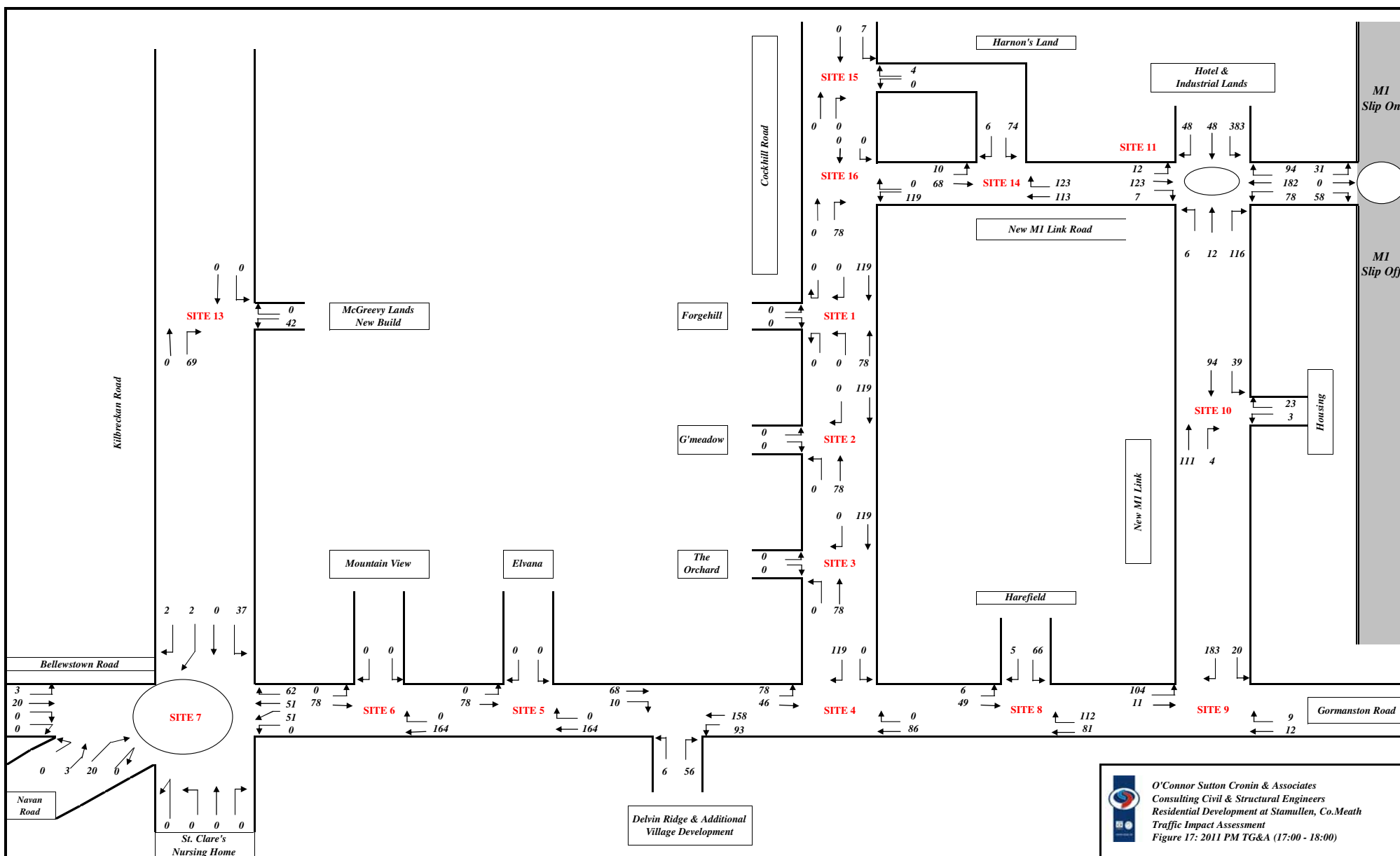
Table 7: Estimated Generated Traffic for Hotel and Industrial Lands Development

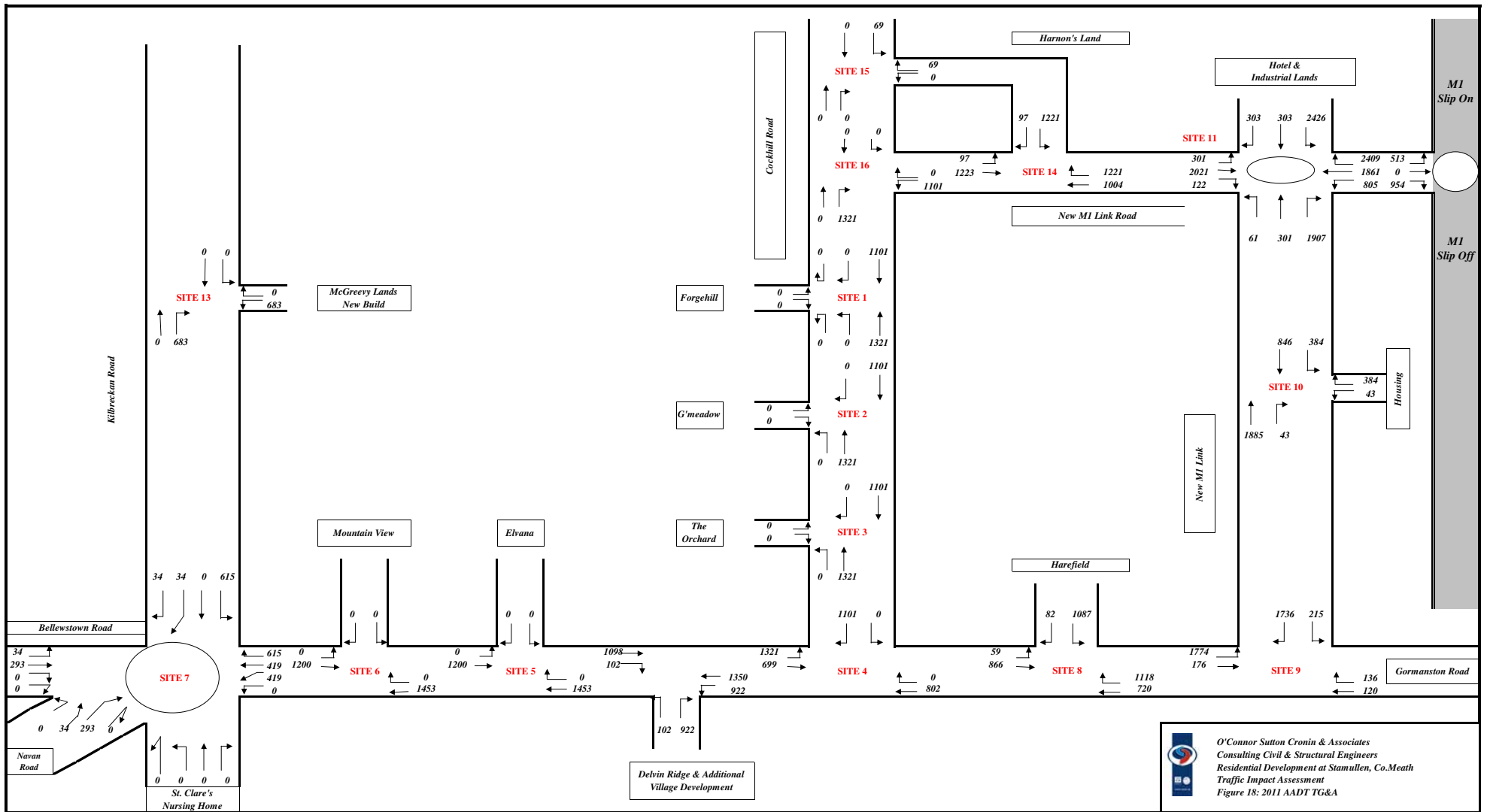
Time Range	McCullough		Total Trips Generated	
	Houses			
	100			
	Arrivals	Departures	Arrivals	Departures
00:00-01:00	5.00	3.00	5	3
01:00-02:00	3.00	3.00	3	3
02:00-03:00	1.00	1.00	1	1
03:00-04:00	1.00	1.00	1	1
04:00-05:00	1.00	2.00	1	2
05:00-06:00	2.00	5.00	2	5
06:00-07:00	5.00	13.00	5	13
07:00-08:00	10.00	35.00	10	35
08:00-09:00	16.00	41.00	16	41
09:00-10:00	19.00	25.00	19	25
10:00-11:00	20.00	24.00	20	24
11:00-12:00	23.00	24.00	23	24
12:00-13:00	26.00	26.00	26	26
13:00-14:00	24.00	26.00	24	26
14:00-15:00	28.00	23.00	28	23
15:00-16:00	34.00	26.00	34	26
16:00-17:00	39.00	25.00	39	25
17:00-18:00	43.00	26.00	43	26
18:00-19:00	37.00	30.00	37	30
19:00-20:00	31.00	25.00	31	25
20:00-21:00	24.00	19.00	24	19
21:00-22:00	17.00	13.00	17	13
22:00-23:00	11.00	7.00	11	7
23:00-24:00	7.00	4.00	7	4
Daily Trip Rates:	427.00	427.00	427	427

Table 8: Estimated Generated Traffic for McCollough Lands

- 5.2.2. As can be established from *Tables 3 - 8*, the development will generate approximately 7,711 arrivals and 7,729 departures per day. During the a.m. peak hour the development will generate 877 arrivals and 561 departures and during the p.m. peak it will generate 591 arrivals and 765 departures.
- 5.2.3. The trip generation potential of the development and the assignment of the generated traffic is shown in the following:
- **Figure 16, 2011 A.M. Peak Trip Generation & Assignment;**
 - **Figure 17, 2011 P.M. Peak Trip Generation & Assignment;**
 - **Figure 18, 2011 Daily Trip Generation & Assignment.**







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 Figure 18: 2011 AADT TG&A

5.2.4. The following figures show the network with the development fully in place:

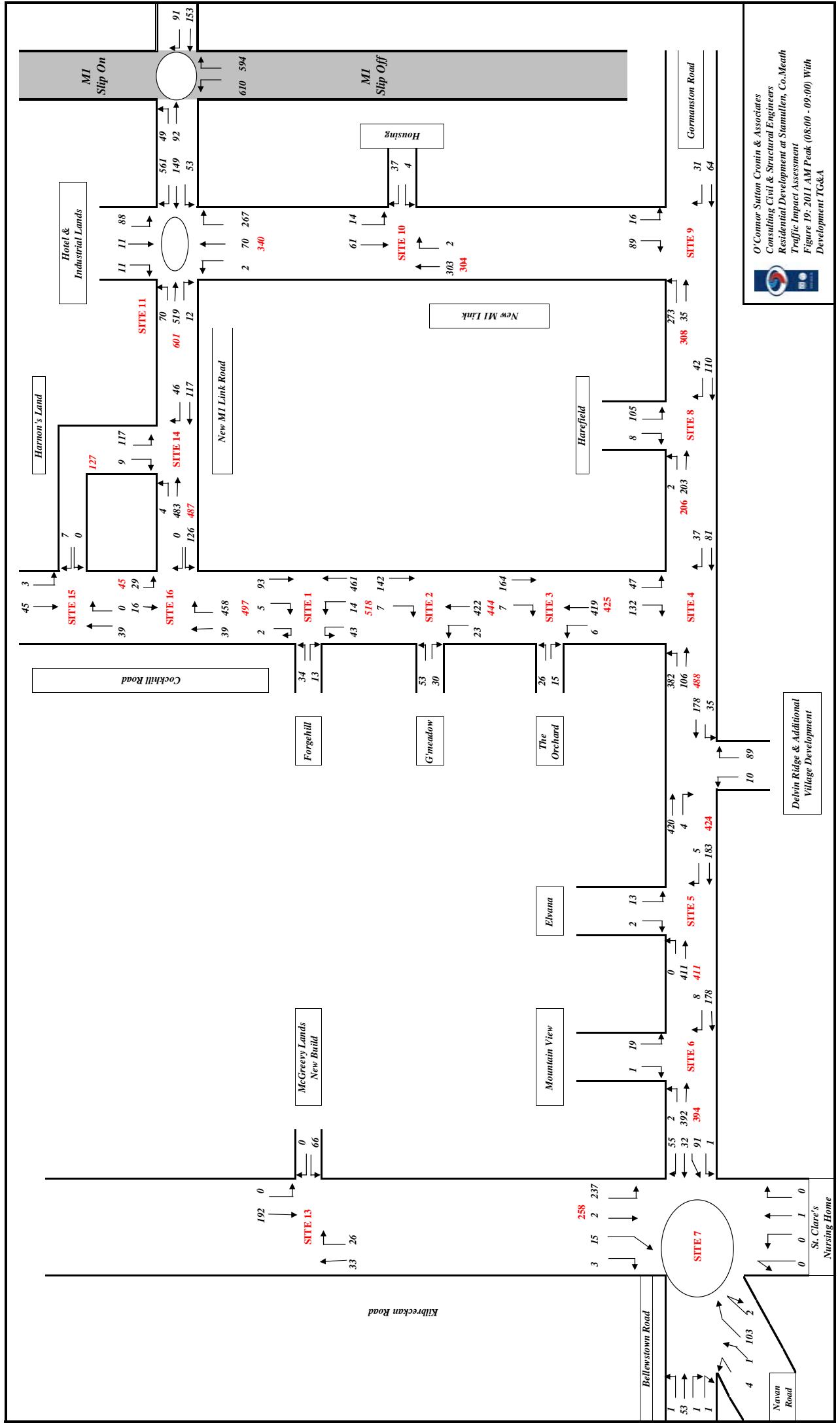
- **Figure 19**, 2011 A.M. Peak with development in place;
- **Figure 20**, 2011 P.M. Peak with development in place;
- **Figure 21**, 2011 AADT with development in place.

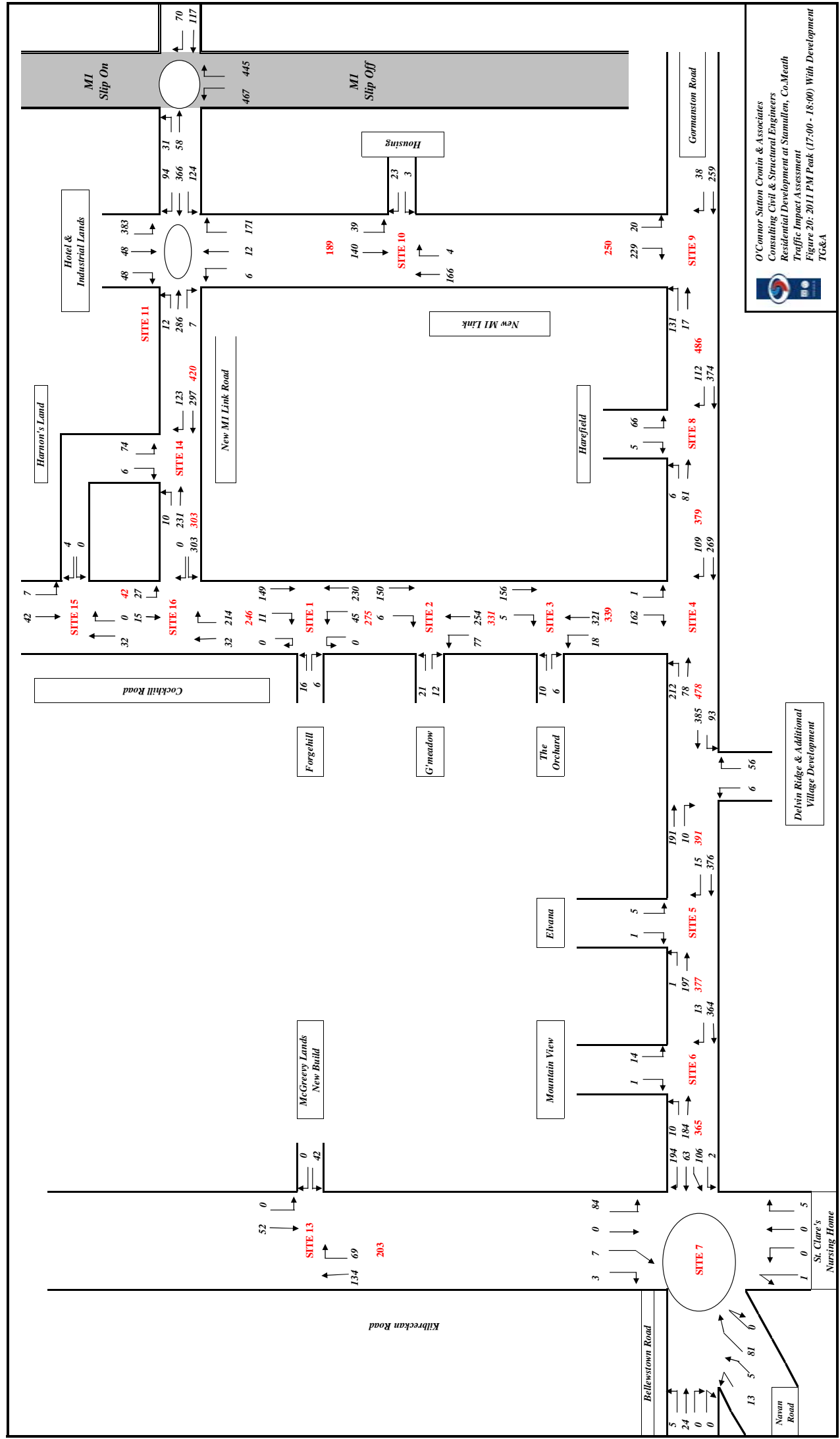
5.2.5. **Table 9** below summarises the year 2011 impact of the development on local AADT values.

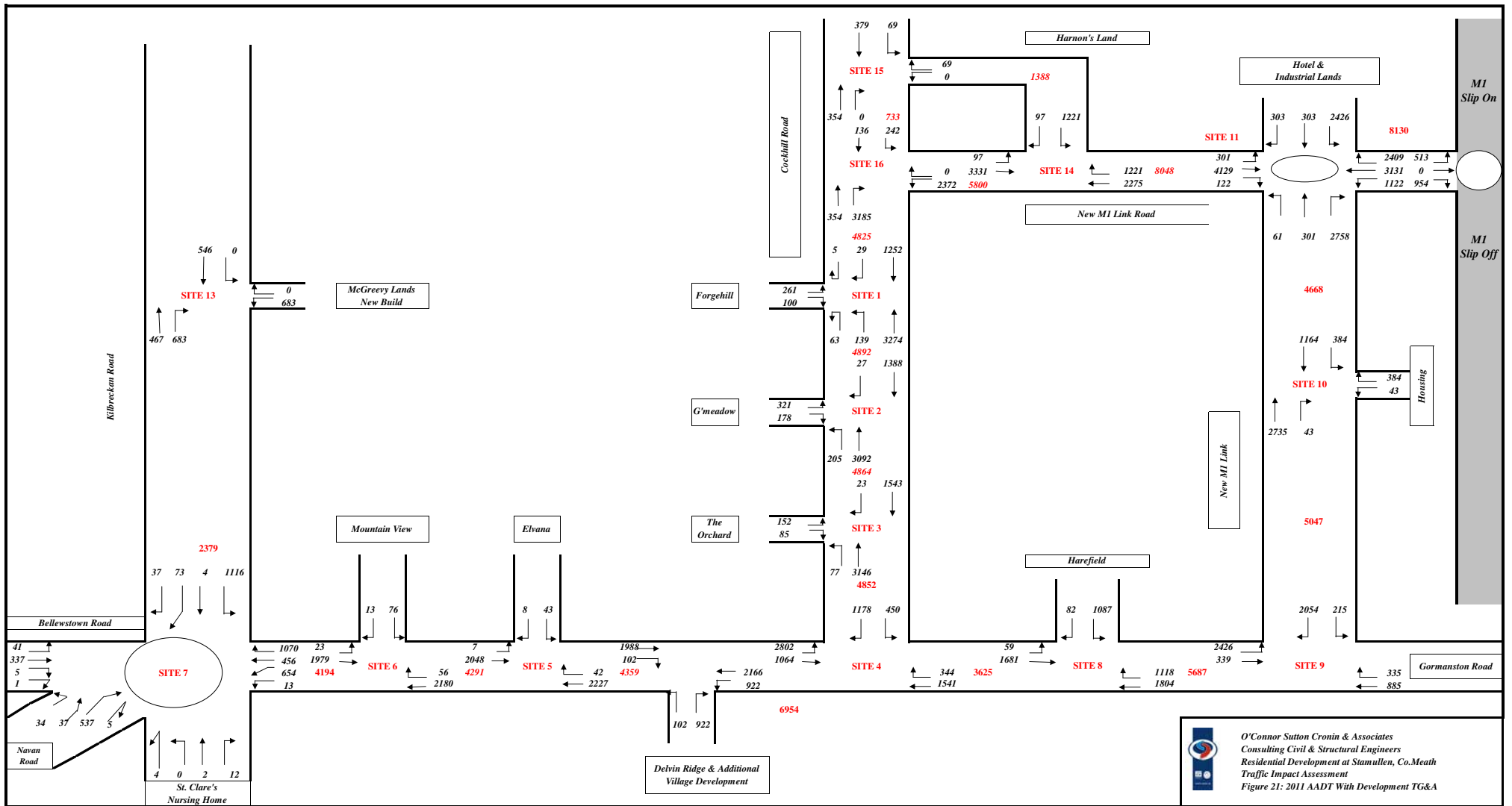
Road Link	2011 AADT		% AADT Increase
	- Dev.	+ Dev.	
Forgehill to Gracemeadow Walk	1520	4892	321.84%
Gracemeadow Walk to The Orchard	2440	4864	199.34%
Orchard to Gormanston Road	2750	4852	176.44%
Cockhill Road Junction to Elvana Access	3647	6954	190.68%
Elvana Access to Mountain View Access	3371	4291	127.29%
Mountain View Access to Navan Road Roundabout	3173	4194	132.18%

Table 9: AADT Increases with Development

- 5.2.6. The impact of the proposed development varies between a 127.29 % to a 321.84 % percent increase in AADT depending on the link in question. However these increases are from very low base figures and the resultant AADT figures with development are still low by normal standards.
- 5.2.7. The highest increase of 321.84 % occurs between Forgehill and Gracemeadow and is as a result of a combination of commuter traffic and traffic accessing the school.
- 5.2.8. In conjunction with the above AADT calculations, the impact of the development on the peak hour flows along the network can also be calculated and assessed. **Table 10** following shows the impact of the development on the p.m. peak hour in 2011 with the development in place.







2011 A.M. Peak Flows and Link Capacity with Development				
Road Link	Width (m)	Link Capacity (veh hr⁻¹)	A.M. Peak (veh hr⁻¹)	RFC⁹ (%)
Forgehill to Gracemeadow	6.1	900	518	57.56%
Gracemeadow to The Orchard	6.1	900	444	49.33%
The Orchard to Gormanston Road	6.1	900	425	47.22%
Cockhill Road Junction to Elvana Access	6.1	900	488	54.22%
Elvana Access to Mountain View Access	6.1	900	411	45.67%
Mountain View Access to Navan Road Roundabout	6.1	900	394	43.78%
McGreevy Access to Navan Road Roundabout	6.1	900	258	28.67%
Cockhill/Gormanstown Rd Jctn to Harefield Access	7.5	1327	206	15.52%
Harefield Access to Gormanstown/M1 Link Jctn	7.5	1327	308	23.21%
Gormanstown/M1 Link Jctn to McCollough Lands Access	7.5	1327	304	22.91%
McCollough Lands Access to Roundabout on New M1 Link	7.5	1327	340	25.62%
Forgehill to M1 Link/Cockhill Jctn	6.1	900	497	55.22%
M1 Link/Cockhill Jctn to Harnan's Land Access off Cockhill Road	6.1	900	45	5.00%
M1 Link/Cockhill Jctn to Harnan's Land Access off M1 Link Road	7.5	1327	487	36.70%
Harnan's Land Access off M1 Link Road to M1 Link Road Roundabout	7.5	1327	601	45.29%
M1 Link Road Roundabout to M1 Interchange West Roundabout	7.5	1327	763	57.50%

Table 10: Flow to Capacity Values for Local Network

- 5.2.9. The highest RFC value is 57.56 % on Cockhill Road between the accesses to Forgehill and Gracemeadow Estates, with the next highest value being 49.33 % on Cockhill Road between the accesses to The Orchard and Gracemeadow Estates. In general however RFC values are low and vary between 5.00 % and 57.56 % and the network links operate well within capacity.
- 5.2.10. The impact of this generated and existing traffic in 2011 has been assessed on the local junctions using VPicady and VOscady software. The output files from this analysis are shown in **Appendix B** to the rear of this report.

⁹ Ratio of Flow to Capacity

- 5.2.11. **Tables 11 – 27** following show the Ratio of Flow to Capacity (RFC) values for each arm of each junction for both the a.m. and p.m. peak hour as calculated by VPicady.

<i>Site #1: Cockhill Road/Forgehill Junction - 2011 RFC Assessment</i>		
Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Cockhill Road N'bound	-	-
From Forgehill	0.111	0.000
Cockhill Road S'bound	0.000	0.000

Table 11: Site #1 RFC's 2011

- 5.2.12. The assessment shows that the junction experiences a maximum a.m. RFC value of 0.111 on the approach from Forgehill and a maximum p.m. RFC value of 0.000 on all approaches. In each case queue lengths are less than 1 vehicle.

<i>Site #2: Cockhill Road/Gracemeadow Junction - 2011 RFC Assessment</i>		
Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Cockhill Road N'bound	-	-
From Gracemeadow Walk	0.209	0.000
Cockhill Road S'bound	0.000	0.000

Table 12: Site #2 RFC's 2011

- 5.2.13. The assessment shows that the junction experiences a maximum a.m. RFC value of 0.209 on the approach from Gracemeadow Walk and a maximum p.m. RFC value of 0.000 on all approaches. In each case queue lengths are less than 1 vehicle.

<i>Site #3: Cockhill Road/The Orchard Junction - 2011 RFC Assessment</i>		
Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Cockhill Road N'bound	-	-
From The Orchard	0.000	0.000
Cockhill Road S'bound	0.000	0.000

Table 13: Site #3 RFC's 2011

- 5.2.14. The assessment shows that the maximum a.m. and p.m. RFC value is 0.000 on all approaches. In each case queue lengths are less than 1 vehicle.

<i>Site #4: Cockhill Road/Gormanston Road Junction - 2011 RFC Assessment</i>		
Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Navan Road E'bound	-	-
Cockhill Road N'bound	0.427	0.456
Gormanston Road W'bound	0.138	0.265

Table 14: Site #4 RFC's 2011

- 5.2.15. The assessment shows that the maximum a.m. RFC value is 0.427 on the Cockhill Road Northbound approach and the maximum p.m. RFC value is 0.456 on the same approach. In each case queue lengths are less than 1 vehicle.

<i>Site #5: Gormanston Road/Elvana Junction - 2011 RFC Assessment</i>		
Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Navan Road E'bound	-	-
From Elvana	0.000	0.000
Gormanston Road W'bound	0.000	0.000

Table 15: Site #5 RFC's 2011

- 5.2.16. The assessment shows that the maximum a.m. and p.m. RFC value is 0.000 on all approaches. In each case queue lengths are less than 1 vehicle.

<i>Site #6: Gormanston Road/Mountain View Junction - 2011 RFC Assessment</i>		
Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Navan Road E'bound	-	-
From Mountain View	0.000	0.000
Gormanston Road W'bound	0.000	0.000

Table 16: Site 2 RFC's 2011

- 5.2.17. The assessment shows that the maximum a.m. RFC value is 0.038 on Mountain View and the maximum p.m. RFC value is 0.026 on both Mountain View and Gormanston Road E'bound. In each case queue lengths are less than 1 vehicle.

Site #7: Kilbreckhan Road/McCreedy Lands Junction - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
From Bellewstown Rd E'bound	0.047	0.025
From Kilbreckhan Rd S'bound	0.211	0.075
From Gormanstown Rd W'bound	0.138	0.279
From Nursing Home	0.001	0.008
From Navan Rd N'bound	0.088	0.085

Table 17: Site #7 RFC's 2011

5.2.18. The assessment shows that the maximum a.m. RFC value is 0.211 on the approach from Kilbreckhan Road Southbound and the maximum p.m. RFC value is 0.279 on the Gormanstown Road Westbound approach. In each case queue lengths are less than 1 vehicle.

Site #8 Gormanston Road/Harefield Access Junction - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Gormanston Road E'bound	-	-
From Harefield	0.209	0.125
Gormanstown Road W'bound	0.104	0.262

Table 18: Site #8 RFC's 2011

5.2.19. The assessment shows that the maximum a.m. RFC value is 0.209 on the approach from Harefield and the maximum p.m. RFC value is 0.262 approach from Gormanstown Road westbound. In each case queue lengths are less than 1 vehicle.

Site #9: M1 Link/Gormanstown Rd Junction - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Gormanstown Rd E'bound	-	-
New M1 Link S'bound	0.232	0.565
Gormanstown Rd W'bound	0.099	0.110

Table 19: Site #9 RFC's 2011

5.2.20. The assessment shows that the maximum a.m. RFC value is 0.232 on the approach from the New M1 Link Southbound approach and the maximum p.m. RFC value is 0.565 on the same approach. The maximum a.m. peak queue lengths are less than 1 vehicle. The

maximum p.m. queue length in the peak quarter is 1.3 vehicles on the New M1 Link Southbound approach

Site #10: New M1 Link/McCullough Lands Access Junction - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
New M1 Link S'bound	-	-
From McCullough Lands	0.093	0.000
New M1 Link N'bound	0.000	0.000

Table 20: Site #10 RFC's 2011

- 5.2.21. The assessment shows that the maximum a.m. RFC value is 0.093 at the approach from the McCullough Lands and the maximum p.m. RFC value is 0.000 on all approaches. In each case queue lengths are less than 1 vehicle.

Site #11: New Roundabout on New M1 Link Junction - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
From New M1 Link Eastbound	0.796	0.273
From Industrial and Hotel Lands	0.135	0.475
From New M1 Link Westbound	0.606	0.480
From New M1 Link Northbound	0.396	0.193

Table 21: Site #11 RFC's 2011

- 5.2.22. The assessment shows that the maximum a.m. RFC value is 0.796 the approach from the M1 Interchange and the maximum p.m. RFC value is 0.480 on the approach from the New M1 Link Westbound. The maximum a.m. queue length in the peak quarter is 3.7 vehicles on the approach from the M1 Interchange. The maximum p.m. queue length is less than one vehicle on all approaches.

Site #12: M1 Interchange – West Roundabout - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Gormanstown Rd W'bound	-	-
From Delvin Bridge	0.271	0.183
Navan Road E'bound	0.000	0.000

Table 22: Site #12 RFC's 2011

- 5.2.23. The assessment shows that the maximum a.m. RFC value is 0.271 on the approach from Delvin Bridge and the maximum p.m. RFC value is 0.183 on the same approach. In each case queue lengths are less than 1 vehicle.

Site #13: Kilbrekhan Rd/McGreevy Access Junction - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Kilbrekhan Rd S'bound	-	-
From McGreevy Lands	0.121	0.072
Kilbrekhan Rd N'bound	0.000	0.133

Table 23: Site #13 RFC's 2011

- 5.2.24. The assessment shows that the maximum a.m. RFC value is 0.121 on the approach from the McGreevy Lands and the maximum p.m. RFC value is 0.133 on the approach from Kilbrekhan Rd N'bound . In each case queue lengths are less than 1 vehicle.

Site #14: New M1 Link/Harnan's Land Access Junction - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
New M1 Link E'bound	-	-
From Harnan's Lands	0.259	0.144
New M1 Link W'bound	0.126	0.247

Table 24: Site #14 RFC's 2011

- 5.2.25. The assessment shows that the maximum a.m. RFC value is 0.259 on the approach from Harnan's Lands and the maximum p.m. RFC value is 0.247 on the approach from the New M1 Link Westbound . In each case queue lengths are less than 1 vehicle.

Site #15: Cockhill Rd/Harnan's Land Access Junction - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Cockhill Rd S'bound	-	-
From Harnan's Lands	0.000	0.000
Cockhill Rd N'bound	0.000	0.000

Table 25: Site #15 RFC's 2011

- 5.2.26. The assessment shows that the maximum a.m. and p.m. RFC value is 0.000 on all approaches. In each case queue lengths are less than 1 vehicle.

Site #16: Cockhill Rd/New M1 Link Junction - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
Cockhill Rd S'bound	-	-
From New M1 Link	0.201	0.479
Cockhill Rd N'bound	0.786	0.343

Table 26: Site #16 RFC's 2011

- 5.2.27. The assessment shows that the maximum a.m. RFC value is 0.786 on the approach from Cockhill Road Northbound and the maximum p.m. RFC value is 0.479 on the approach from the New M1 Link. The maximum a.m. queue length in the peak quarter is 3.4 vehicles on the approach from the New M1 Link. The maximum p.m. queue length is less than one vehicle on all approaches.

Site #17: M1 Interchange West Roundabout - 2011 RFC Assessment

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
From Stamullen	0.218	0.167
From Slip off M1	1.064	0.776
From New M1 Link	0.128	0.075
From Slip to M1	Exit Only	Exit Only

Table 27: Site #17 RFC's 2011

- 5.2.28. The assessment shows that the maximum a.m. RFC value is 1.064 on the approach from the M1 Slip Ramp and the maximum p.m. RFC value is 0.776 on the same approach. The maximum a.m. queue length in the peak quarter is 51.2 vehicles on the approach from the M1 Slip Ramp. The maximum p.m. queue length in the peak quarter is 3.4 vehicles on the approach from the M1 Slip Ramp.
- 5.2.29. The M1 Interchange West Roundabout would quickly become overloaded as development progresses. As such, an alternative junction type is proposed to alleviate this problem. Introduction of a Free Flow Left Slip from the Slip off the M1 onto the Development Access Road would reduce the number of movements on the roundabout and eliminate a large proportion of traffic from the roundabout. The roundabout junction has been remodelled assuming that the Free Flow Left Slip from the M1 Off Ramp is in place. The results of this modelling is shown in **Table 28** following.

***Site #17: M1 Interchange West Roundabout With Free Flow Slip to
Development from M1 Off Ramp - 2011 RFC Assessment***

Junction Approach	Ratio of Flow to Capacity	
	A.M.	P.M.
From Stamullen	0.218	0.167
From Slip off M1	0.520	0.378
From New M1 Link	0.118	0.068
From Slip to M1	Exit Only	Exit Only

Table 27: Site #17 RFC's 2011

- 5.2.30. The assessment shows that the maximum a.m. RFC value is 0.520 on the approach from the M1 Slip Ramp and the maximum p.m. RFC value is 0.378 on the same approach. The maximum a.m. queue length in the peak quarter is 1.1 vehicles on the approach from the M1 Slip Ramp. The maximum p.m. queue length in the peak quarter is less than one vehicle on all approaches.
- 5.2.31. The assessment shows that the road link network and simple priority and roundabout junction network can support the development generated traffic as previously outline. Note that the introduction of the proposed new link roads providing access to the M1 Interchange and some of the development lands aid greatly in the distribution of the forecast and development traffic. Omission of these links and junctions would have an overall negative effect on the RFC values for both Links and junctions alike.
- 5.2.32. As development progresses and generated traffic increases, the M1 Interchange West Roundabout junction will become overloaded, but initial development levels will still see the junctions operating within capacity. When the proposed development lands are built out in their entirety the M1 Interchange West Roundabout will no longer be operating at an efficient level.
- 5.2.33. The previous tables show that the 2011 estimated traffic can be managed by upgrading the existing M1 Interchange West Roundabout junction and the introduction of the new access links to the M1 Interchange. These measures will ensure sufficient additional capacity to service the road network well into the future.
- 5.2.34. To this end, traffic monitoring and assessment is recommended as the proposed developments progress through construction and into occupation phases in order to ascertain the appropriate time for provision of signals, should the need so arise.

6. DO NOTHING SCENARIO

- 6.1. The do nothing scenario in respect of the lands would entail leaving the subject lands in their current undeveloped use. This would serve to exacerbate the current employment and housing shortage in the county and the country as a whole.
- 6.2. The transport infrastructure matrix in question would easily support a development of the type planned and indeed such a development would enhance the general attractiveness of the area and have no noticeably detrimental effect on traffic congestion in the subject area.

7. REMEDIAL AND MITIGATION MEASURES

- 7.1.1. The proposed development has only a very limited impact on traffic levels in the area on a peak hour or daily basis at initial development levels. As development progresses and generated traffic increases, M1 Interchange West Roundabout junction will become overloaded, but initial development levels will still see the junction operating within capacity. When the proposed development lands are built out in their entirety the junction will no longer be operating at an efficient level.
- 7.1.2. A new link to Stamullen from the M1 via a grade separated interchange which will link to the Gormanston Road. Introduction of this new access will increase the accessibility of the village and will also provide an easily accessible site for a Hotel and Business Park. Siting of the Hotel and Business Park at this location will minimize the traffic generated by this type of development accessing the village core. Most of the generated traffic will access and egress via the new M1 junction. An additional new Link to the Cockhill Road will further distribute the traffic on the network ensuring that levels are not excessive and that the links and junctions all operate efficiently.
- 7.1.3. When the build out has been completed, the M1 Interchange West Roundabout will experience overloading which will lead to excessive queue lengths on the approach from the M1 Off Ramp. In an effort to eliminate this problem, the introduction of a free flow left slip lane is proposed linking the M1 off ramp to the development access. Analysis of the junctions with the slip lanes in place show that the junction will work efficiently and queuing will be minimal.

8. MONITORING



- 8.1. It is recommended that the development of the area should be monitored in terms of transportation efficiencies into the future.

Paul Corrigan, TechIEI.
Chief Civil Technician
O'Connor Sutton Cronin & Associates

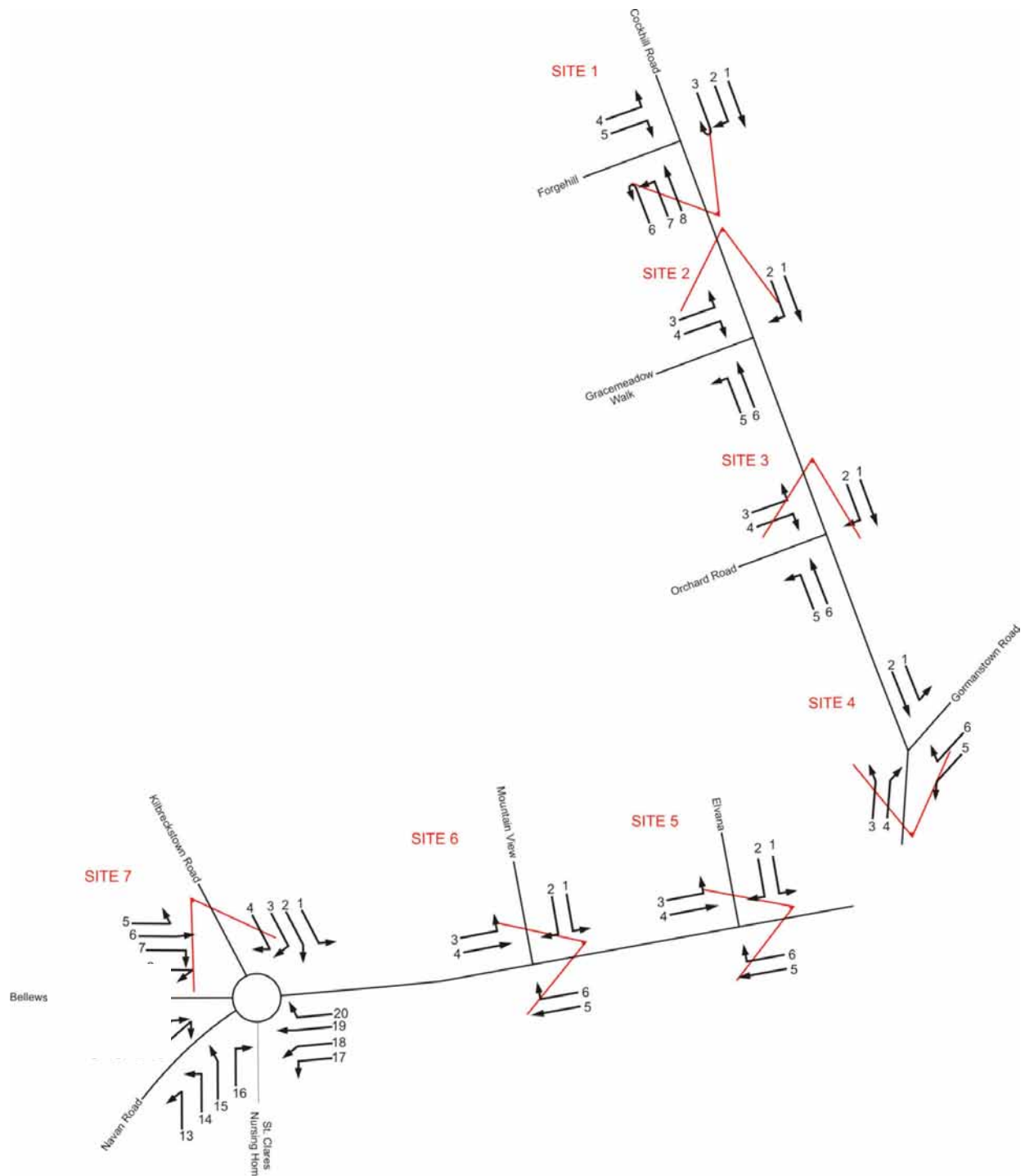
APPENDIX A: TRAFFIC COUNTS

Site Locations



	<u>Article XIII.</u> <u>number:</u>	<u>Article XI.</u> <u>date:</u>	<u>Article X.</u> <u>No:</u>	 abacus <small>Transportation Surveys</small>
	ATH/06/020	18 th January 2006	ATH/06/020-1	
	<u>Article VIII.</u> <u>Client:</u>	<u>Article IX.</u> <u>Job day:</u>	<u>Article XII.</u> <u>Author:</u>	
	OSC	Wednesday	ITK	

Article III. Movement Numbers & Directions



	Article IV. <u>Job</u> number:	Article II. <u>Job</u> date:	Article V. <u>Drawing</u> No:	
	ATH/06/020	18 th January 2006	ATH/06/020-2	
	Article VII. <u>Client:</u> OSC	Article I. <u>Job day:</u> Wednesday	Article VI. <u>Author:</u> ITK	

SURVEY RESULTS

CLASSIFIED COUNTS

Sites 1 to 7

ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 01

DATE: 18th January 2006

LOCATION: Cockhill Road/Forgehill

DAY: Wednesday

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	3	0	0	0	0	3	1	0	0	0	0	1	0	0	0	0	0	0
7:15	4	1	0	0	1	6	0	1	0	0	0	1	0	0	0	0	0	0
7:30	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0
7:45	10	2	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	18	3	0	0	1	22	2	1	0	0	0	3	0	0	0	0	0	0
8:00	5	2	0	1	0	8	1	0	0	0	0	1	0	0	0	0	0	0
8:15	10	1	1	0	0	12	0	2	0	0	0	2	0	0	0	0	0	0
8:30	3	0	1	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0
8:45	6	1	1	0	0	8	0	0	0	0	0	0	2	0	0	0	0	2
H/TOT	24	4	3	1	0	32	1	2	1	0	0	4	2	0	0	0	0	2
9:00	10	1	0	0	0	11	0	0	0	0	0	0	1	0	0	0	0	1
9:15	7	1	1	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	17	2	1	0	0	20	0	0	0	0	0	0	1	0	0	0	0	1
P/TOT	59	9	4	1	1	74	3	3	1	0	0	7	3	0	0	0	0	3

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	5	0	0	0	0	5	0	0	0	0	0	0	0	0	1	0	0	1
16:45	2	0	0	0	0	2	2	2	0	0	0	4	0	0	0	0	0	0
H/TOT	7	0	0	0	0	7	2	2	0	0	0	4	0	0	1	0	0	1
17:00	6	0	0	0	0	6	1	0	0	0	0	1	0	0	0	0	0	0
17:15	6	2	0	0	0	8	1	0	0	0	0	1	0	0	0	0	0	0
17:30	6	1	1	0	0	8	3	0	1	0	0	4	0	0	0	0	0	0
17:45	2	1	0	1	0	4	3	0	0	0	0	3	0	0	0	0	0	0
H/TOT	20	4	1	1	0	26	8	0	1	0	0	9	0	0	0	0	0	0
18:00	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
18:15	2	1	0	0	0	3	1	0	0	0	0	1	0	0	0	0	0	0
18:30	6	1	0	0	0	7	3	0	0	0	0	3	0	0	0	0	0	0
18:45	5	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	17	3	0	0	0	20	4	0	0	0	0	4	0	0	0	0	0	0
P/TOT	44	7	1	1	0	53	14	2	1	0	0	17	0	0	1	0	0	1

D/TOT	103	16	5	2	1	127	17	5	2	0	0	24	3	0	1	0	0	4
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 01

DATE: 18th January 2006

LOCATION: Cockhill Road/Forgehill

DAY: Wednesday

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	2	0	0	0	0	2	8	1	0	0	0	9
7:15	1	0	0	0	0	1	12	1	0	0	0	13
7:30	0	1	0	0	0	1	17	1	0	0	0	18
7:45	1	0	0	0	0	1	10	2	0	0	0	12
H/TOT	4	1	0	0	0	5	47	5	0	0	0	52
8:00	2	0	0	0	0	2	8	1	0	0	0	9
8:15	0	0	0	0	0	0	11	0	0	0	0	11
8:30	0	0	1	0	0	1	7	1	0	0	0	8
8:45	1	0	0	0	0	1	9	3	0	0	0	12
H/TOT	3	0	1	0	0	4	35	5	0	0	0	40
9:00	1	0	0	0	0	1	10	0	0	0	0	10
9:15	2	0	0	0	0	2	0	0	0	0	0	0
H/TOT	3	0	0	0	0	3	10	0	0	0	0	10
P/TOT	10	1	1	0	0	12	92	10	0	0	0	102

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	1	2	0	0	0	3	5	0	0	0	0	5
16:45	1	0	0	0	0	1	1	1	0	0	0	2
H/TOT	2	2	0	0	0	4	6	1	0	0	0	7
17:00	0	0	0	0	0	0	6	1	0	0	0	7
17:15	2	1	0	0	0	3	3	0	0	0	0	3
17:30	0	0	1	0	0	1	2	0	0	0	0	2
17:45	1	0	1	0	0	2	3	0	0	0	0	3
H/TOT	3	1	2	0	0	6	14	1	0	0	0	15
18:00	1	0	0	0	0	1	3	0	0	0	0	3
18:15	0	0	0	0	0	0	5	2	0	0	0	7
18:30	0	0	0	0	0	0	2	1	0	0	0	3
18:45	0	0	0	0	0	0	4	0	0	0	0	4
H/TOT	1	0	0	0	0	1	14	3	0	0	0	17
P/TOT	6	3	2	0	0	11	34	5	0	0	0	39

D/TOT	16	4	3	0	0	23	126	15	0	0	0	141
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 01

DATE: 18th January 2006

LOCATION: Cockhill Road/Forgehill

DAY: Wednesday

TIME	MOVEMENT 6					TOT	MOVEMENT 7					TOT	MOVEMENT 8					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	2
7:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
7:30	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7
7:45	0	0	0	0	0	0	3	1	0	0	0	4	4	1	1	0	0	6
H/TOT	0	0	0	0	0	0	4	2	0	0	0	6	14	2	1	0	0	17
8:00	0	0	0	0	0	0	4	0	0	0	0	4	2	1	1	0	1	5
8:15	2	0	1	0	0	3	2	2	0	0	0	4	7	1	0	0	0	8
8:30	13	0	0	0	0	13	2	0	0	0	0	2	5	0	0	0	0	5
8:45	19	1	0	0	0	20	2	0	0	0	0	2	7	1	1	0	0	9
H/TOT	34	1	1	0	0	36	10	2	0	0	0	12	21	3	2	0	1	27
9:00	16	0	0	0	0	16	2	0	0	0	0	2	8	0	0	0	0	8
9:15	0	0	0	0	0	0	4	0	0	0	0	4	6	0	1	0	0	7
H/TOT	16	0	0	0	0	16	6	0	0	0	0	6	14	0	1	0	0	15
P/TOT	50	1	1	0	0	52	20	4	0	0	0	24	49	5	4	0	1	59

TIME	MOVEMENT 6					TOT	MOVEMENT 7					TOT	MOVEMENT 8					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	0	0	0	0	0	0	2	0	0	0	0	2	9	1	0	0	0	10
16:45	1	0	0	0	0	1	4	0	0	0	0	4	5	1	0	0	1	7
H/TOT	1	0	0	0	0	1	6	0	0	0	0	6	14	2	0	0	1	17
17:00	0	0	0	0	0	0	8	1	0	0	0	9	7	1	0	0	0	8
17:15	0	0	0	0	0	0	7	0	1	0	0	8	3	0	1	0	0	4
17:30	0	0	0	0	0	0	5	1	0	0	0	6	4	0	1	0	0	5
17:45	0	0	0	0	0	0	14	1	0	0	0	15	3	1	0	0	0	4
H/TOT	0	0	0	0	0	0	34	3	1	0	0	38	17	2	2	0	0	21
18:00	0	0	0	0	0	0	17	0	0	0	0	17	3	2	0	0	0	5
18:15	0	0	0	0	0	0	12	2	0	0	0	14	6	1	0	0	0	7
18:30	0	0	0	0	0	0	8	1	0	0	0	9	7	0	0	0	0	7
18:45	0	0	0	0	0	0	9	0	0	0	0	9	2	0	0	0	0	2
H/TOT	0	0	0	0	0	0	46	3	0	0	0	49	18	3	0	0	0	21
P/TOT	1	0	0	0	0	1	86	6	1	0	0	93	49	7	2	0	1	59

D/TOT	51	1	1	0	0	53	106	10	1	0	0	117	98	12	6	0	2	118
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 02

DATE: 18th January 2006

LOCATION: Cockhill Road/Gracemeadow Walk

DAY: Wednesday

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	11	1	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
7:15	15	0	0	0	1	16	3	0	0	0	0	3	0	0	0	0	0	0
7:30	17	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0
7:45	18	4	0	0	0	22	2	0	0	0	0	2	0	1	0	0	0	1
H/TOT	61	5	0	0	1	67	5	0	0	0	0	5	0	1	0	0	0	1
8:00	14	0	0	1	0	15	1	0	0	0	0	1	0	0	0	0	0	0
8:15	20	0	2	0	0	22	1	0	0	0	0	1	2	0	0	0	0	2
8:30	20	2	1	0	0	23	1	0	0	0	0	1	1	0	0	0	0	1
8:45	48	2	0	0	0	50	3	0	0	0	0	3	1	0	0	0	0	1
H/TOT	102	4	3	1	0	110	6	0	0	0	0	6	4	0	0	0	0	4
9:00	38	0	0	0	0	38	2	0	0	0	0	2	0	0	0	0	0	0
9:15	6	1	1	0	0	8	2	0	0	0	0	2	0	0	0	0	0	0
H/TOT	44	1	1	0	0	46	4	0	0	0	0	4	0	0	0	0	0	0
P/TOT	207	10	4	1	1	223	15	0	0	0	0	15	4	1	0	0	0	5

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	9	0	0	0	0	9	1	0	0	0	0	1	0	0	0	0	0	0
16:45	3	1	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	0
H/TOT	12	1	0	0	0	13	2	0	0	0	0	2	0	0	0	0	0	0
17:00	10	0	0	0	0	10	3	0	0	0	0	3	0	0	0	0	0	0
17:15	9	0	0	0	0	9	1	0	0	0	0	1	0	0	0	0	0	0
17:30	7	0	1	0	0	8	1	0	0	0	0	1	2	0	0	0	0	2
17:45	9	0	0	1	0	10	0	0	0	0	0	0	1	0	0	0	0	1
H/TOT	35	0	1	1	0	37	5	0	0	0	0	5	3	0	0	0	0	3
18:00	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0
18:15	9	1	0	0	0	10	0	0	0	0	0	0	1	0	0	0	0	1
18:30	9	3	0	0	0	12	1	0	0	0	0	1	0	0	0	0	0	0
18:45	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	34	4	0	0	0	38	1	0	0	0	0	1	1	0	0	0	0	1
P/TOT	81	5	1	1	0	88	8	0	0	0	0	8	4	0	0	0	0	4

D/TOT	288	15	5	2	1	311	23	0	0	0	0	23	8	1	0	0	0	9
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 02

DATE: 18th January 2006

LOCATION: Cockhill Road/Gracemeadow Walk

DAY: Wednesday

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	6	0	0	0	0	6	0	0	0	0	0	0	4	0	0	0	0	4
7:15	11	0	0	0	0	11	0	0	0	0	0	0	2	0	0	0	0	2
7:30	13	2	0	0	0	15	5	0	0	0	0	5	5	1	0	0	0	6
7:45	15	6	0	0	0	21	1	0	0	0	0	1	6	3	1	0	0	10
H/TOT	45	8	0	0	0	53	6	0	0	0	0	6	17	4	1	0	0	22
8:00	11	2	0	0	0	13	2	0	0	0	0	2	4	2	1	0	1	8
8:15	12	3	0	0	0	15	4	1	0	0	0	5	15	2	1	0	0	18
8:30	14	0	0	0	0	14	3	1	0	0	0	4	32	4	0	0	0	36
8:45	22	1	0	0	0	23	8	0	0	0	0	8	53	2	1	0	0	56
H/TOT	59	6	0	0	0	65	17	2	0	0	0	19	104	10	3	0	1	118
9:00	14	0	0	0	0	14	6	0	0	0	0	6	15	1	0	0	0	16
9:15	10	1	0	0	0	11	6	1	0	0	0	7	9	0	1	0	0	10
H/TOT	24	1	0	0	0	25	12	1	0	0	0	13	24	1	1	0	0	26
P/TOT	128	15	0	0	0	143	35	3	0	0	0	38	145	15	5	0	1	166

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	2	0	0	0	0	2	11	0	0	0	0	11	12	0	0	0	0	12
16:45	4	0	0	0	0	4	6	3	0	0	0	9	10	1	0	0	1	12
H/TOT	6	0	0	0	0	6	17	3	0	0	0	20	22	1	0	0	1	24
17:00	3	1	0	0	0	4	11	3	0	0	0	14	14	2	0	0	0	16
17:15	5	0	0	0	0	5	15	0	0	0	0	15	10	1	2	0	0	13
17:30	2	0	0	0	0	2	18	2	0	0	0	20	7	2	1	0	0	10
17:45	12	1	0	0	0	13	16	0	0	0	0	16	16	1	0	0	0	17
H/TOT	22	2	0	0	0	24	60	5	0	0	0	65	47	6	3	0	0	56
18:00	6	0	0	0	0	6	18	0	0	0	0	18	18	3	0	0	0	21
18:15	7	0	0	0	0	7	7	0	0	0	0	7	19	2	0	0	0	21
18:30	2	0	0	0	0	2	11	0	0	0	0	11	15	3	0	0	0	18
18:45	5	0	0	0	0	5	12	2	0	0	0	14	12	0	0	0	0	12
H/TOT	20	0	0	0	0	20	48	2	0	0	0	50	64	8	0	0	0	72
P/TOT	48	2	0	0	0	50	125	10	0	0	0	135	133	15	3	0	1	152

D/TOT	176	17	0	0	0	193	160	13	0	0	0	173	278	30	8	0	2	318
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 03

DATE: 18th January 2006

LOCATION: Cockhill Road/Orchard Road

DAY: Wednesday

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	17	1	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0
7:15	26	0	0	0	1	27	0	0	0	0	0	0	0	0	0	0	0	0
7:30	30	2	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0
7:45	32	10	0	0	0	42	1	0	0	0	0	1	0	0	0	0	0	0
H/TOT	105	13	0	0	1	119	1	0	0	0	0	1	0	0	0	0	0	0
8:00	24	2	0	1	0	27	1	0	0	0	0	1	0	0	0	0	0	0
8:15	32	3	2	0	0	37	0	0	0	0	0	0	1	0	0	0	0	1
8:30	36	2	1	0	0	39	0	0	0	0	0	0	3	0	0	0	0	3
8:45	67	4	0	0	0	71	5	0	0	0	0	5	5	0	0	0	0	5
H/TOT	159	11	3	1	0	174	6	0	0	0	0	6	9	0	0	0	0	9
9:00	52	1	0	0	0	53	1	0	0	0	0	1	2	0	0	0	0	2
9:15	16	2	1	0	0	19	1	0	0	0	0	1	1	0	0	0	0	1
H/TOT	68	3	1	0	0	72	2	0	0	0	0	2	3	0	0	0	0	3
P/TOT	332	27	4	1	1	365	9	0	0	0	0	9	12	0	0	0	0	12

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	11	0	0	0	0	11	0	0	0	0	0	0	2	0	0	0	0	2
16:45	6	1	0	0	0	7	1	0	0	0	0	1	1	0	0	0	0	1
H/TOT	17	1	0	0	0	18	1	0	0	0	0	1	3	0	0	0	0	3
17:00	13	1	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0
17:15	13	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0
17:30	8	0	1	0	0	9	1	0	0	0	0	1	1	0	0	0	0	1
17:45	16	1	0	1	0	18	3	0	0	0	0	3	0	0	0	0	0	0
H/TOT	50	2	1	1	0	54	4	0	0	0	0	4	1	0	0	0	0	1
18:00	12	0	0	0	0	12	0	0	0	0	0	0	1	0	0	0	0	1
18:15	12	1	0	0	0	13	4	0	0	0	0	4	0	0	0	0	0	0
18:30	10	2	0	0	0	12	1	0	0	0	0	1	0	0	0	0	0	0
18:45	14	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	48	3	0	0	0	51	5	0	0	0	0	5	1	0	0	0	0	1
P/TOT	115	6	1	1	0	123	10	0	0	0	0	10	5	0	0	0	0	5

D/TOT	447	33	5	2	1	488	19	0	0	0	0	19	17	0	0	0	0	17
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 03

DATE: 18th January 2006

LOCATION: Cockhill Road/Orchard Road

DAY: Wednesday

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
7:15	3	0	0	0	0	3	0	0	0	0	0	0	2	0	0	0	0	2
7:30	3	1	0	0	0	4	0	0	0	0	0	0	10	1	0	0	0	11
7:45	7	0	0	0	0	7	2	0	0	0	0	2	7	3	1	0	0	11
H/TOT	17	1	0	0	0	18	2	0	0	0	0	2	23	4	1	0	0	28
8:00	2	0	0	0	0	2	4	0	0	0	0	4	6	2	1	0	1	10
8:15	5	1	0	0	0	6	1	0	0	0	0	1	18	3	1	0	0	22
8:30	8	0	1	0	0	9	0	0	0	0	0	0	31	4	0	0	0	35
8:45	8	0	0	0	0	8	0	0	0	0	0	0	55	2	1	0	0	58
H/TOT	23	1	1	0	0	25	5	0	0	0	0	5	110	11	3	0	1	125
9:00	6	0	0	0	0	6	1	0	0	0	0	1	19	1	0	0	0	20
9:15	3	0	0	0	0	3	3	0	0	0	0	3	14	1	1	0	0	16
H/TOT	9	0	0	0	0	9	4	0	0	0	0	4	33	2	1	0	0	36
P/TOT	49	2	1	0	0	52	11	0	0	0	0	11	166	17	5	0	1	189

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	0	1	0	0	0	1	4	0	0	0	0	4	21	0	0	0	0	21
16:45	2	0	0	0	0	2	2	0	0	0	0	2	15	4	0	0	1	20
H/TOT	2	1	0	0	0	3	6	0	0	0	0	6	36	4	0	0	1	41
17:00	3	0	0	0	0	3	4	0	0	0	0	4	26	5	0	0	0	31
17:15	5	0	0	0	0	5	4	0	0	0	0	4	26	1	2	0	0	29
17:30	2	1	0	0	0	3	5	0	0	0	0	5	24	4	1	0	0	29
17:45	1	0	0	0	0	1	2	0	0	0	0	2	33	2	0	0	0	35
H/TOT	11	1	0	0	0	12	15	0	0	0	0	15	109	12	3	0	0	124
18:00	4	0	0	0	0	4	7	1	0	0	0	8	35	4	0	0	0	39
18:15	0	0	0	0	0	0	8	1	0	0	0	9	27	2	0	0	0	29
18:30	3	0	0	0	0	3	9	1	0	0	0	10	26	3	0	0	0	29
18:45	6	0	0	0	0	6	6	0	0	0	0	6	24	2	0	0	0	26
H/TOT	13	0	0	0	0	13	30	3	0	0	0	33	112	11	0	0	0	123
P/TOT	26	2	0	0	0	28	51	3	0	0	0	54	257	27	3	0	1	288

D/TOT	75	4	1	0	0	80	62	3	0	0	0	65	423	44	8	0	2	477
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 04

DATE: 18th January 2006

LOCATION: Cockhill Road/Gormanstown Road

DAY: Wednesday

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	19	1	0	0	0	20	2	0	0	0	0	2	4	0	0	0	0	4
7:15	23	0	0	0	0	23	6	0	0	0	1	7	1	0	0	0	0	1
7:30	26	1	0	0	0	27	7	2	0	0	0	9	5	1	0	0	0	6
7:45	28	6	0	0	0	34	12	3	0	0	0	15	5	0	1	0	0	6
H/TOT	96	8	0	0	0	104	27	5	0	0	1	33	15	1	1	0	0	17
8:00	21	1	0	1	0	23	7	2	0	0	0	9	2	0	1	0	1	4
8:15	26	2	1	0	0	29	11	2	1	0	0	14	15	1	0	0	0	16
8:30	37	0	0	0	0	37	7	2	1	0	0	10	27	3	0	0	0	30
8:45	37	2	1	0	0	40	39	2	0	0	0	41	47	0	1	0	0	48
H/TOT	121	5	2	1	0	129	64	8	2	0	0	74	91	4	2	0	1	98
9:00	31	1	0	0	0	32	28	1	0	0	0	29	10	0	0	0	0	10
9:15	14	1	0	0	0	15	6	1	1	0	0	8	8	0	0	0	0	8
H/TOT	45	2	0	0	0	47	34	2	1	0	0	37	18	0	0	0	0	18
P/TOT	262	15	2	1	0	280	125	15	3	0	1	144	124	5	3	0	1	133

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	9	1	0	0	0	10	4	0	0	0	0	4	10	0	0	0	0	10
16:45	6	1	0	0	0	7	4	1	0	0	0	5	6	1	0	0	1	8
H/TOT	15	2	0	0	0	17	8	1	0	0	0	9	16	1	0	0	1	18
17:00	11	1	0	0	0	12	4	0	0	0	0	4	10	0	0	0	0	10
17:15	12	0	0	0	0	12	7	0	0	0	0	7	6	1	1	0	0	8
17:30	2	0	0	0	0	2	10	1	1	0	0	12	14	1	0	0	0	15
17:45	8	1	0	1	0	10	7	0	0	0	0	7	17	0	0	0	0	17
H/TOT	33	2	0	1	0	36	28	1	1	0	0	30	47	2	1	0	0	50
18:00	9	0	0	0	0	9	7	0	0	0	0	7	19	0	0	0	0	19
18:15	6	0	0	0	0	6	6	1	0	0	0	7	15	2	0	0	0	17
18:30	5	1	0	0	0	6	8	1	0	0	0	9	10	1	0	0	0	11
18:45	13	1	0	0	0	14	9	0	0	0	0	9	8	2	0	0	0	10
H/TOT	33	2	0	0	0	35	30	2	0	0	0	32	52	5	0	0	0	57
P/TOT	81	6	0	1	0	88	66	4	1	0	0	71	115	8	1	0	1	125

P/TOT	343	21	2	2	0	368	191	19	4	0	1	215	239	13	4	0	2	258
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 04

DATE: 18th January 2006

LOCATION: Cockhill Road/Gormanstown Road

DAY: Wednesday

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	23	3	0	0	0	26	8	2	0	0	0	10	0	0	0	0	0	0
7:15	30	1	1	1	0	33	8	0	1	0	0	9	1	0	0	0	0	1
7:30	29	2	2	0	2	35	11	1	0	0	0	12	5	0	0	0	0	5
7:45	22	8	0	1	0	31	12	1	0	0	1	14	4	2	0	0	0	6
H/TOT	104	14	3	2	2	125	39	4	1	0	1	45	10	2	0	0	0	12
8:00	39	3	0	0	0	42	17	1	0	1	0	19	7	2	0	0	0	9
8:15	27	2	0	0	0	29	20	5	1	0	1	27	4	2	1	0	0	7
8:30	22	6	1	0	0	29	8	3	0	0	0	11	4	1	0	0	0	5
8:45	20	2	0	2	0	24	4	0	0	1	0	5	8	2	0	0	0	10
H/TOT	108	13	1	2	0	124	49	9	1	2	1	62	23	7	1	0	0	31
9:00	22	2	0	1	0	25	11	0	1	1	0	13	9	1	0	0	0	10
9:15	20	0	0	1	0	21	13	4	2	0	0	19	9	2	1	0	0	12
H/TOT	42	2	0	2	0	46	24	4	3	1	0	32	18	3	1	0	0	22
P/TOT	254	29	4	6	2	295	112	17	5	3	2	139	51	12	2	0	0	65

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	20	1	0	0	0	21	28	3	1	0	1	33	16	0	0	0	0	16
16:45	13	3	0	0	0	16	24	5	2	0	0	31	12	3	0	0	0	15
H/TOT	33	4	0	0	0	37	52	8	3	0	1	64	28	3	0	0	0	31
17:00	23	1	0	0	0	24	31	3	0	0	0	34	20	4	0	0	0	24
17:15	17	0	1	0	0	18	30	4	0	0	0	34	24	1	1	0	0	26
17:30	17	4	0	0	0	21	45	3	0	0	0	48	16	3	1	0	0	20
17:45	24	2	0	1	0	27	34	1	0	0	0	35	19	3	0	0	0	22
H/TOT	81	7	1	1	0	90	140	11	0	0	0	151	79	11	2	0	0	92
18:00	20	1	1	0	0	22	54	3	0	0	0	57	24	5	0	0	0	29
18:15	12	3	0	0	0	15	30	1	0	0	0	31	21	2	0	0	0	23
18:30	12	2	0	0	0	14	36	9	0	0	0	45	25	3	0	0	0	28
18:45	24	0	0	0	0	24	32	2	1	0	0	35	22	0	0	0	0	22
H/TOT	68	6	1	0	0	75	152	15	1	0	0	168	92	10	0	0	0	102
P/TOT	182	17	2	1	0	202	344	34	4	0	1	383	199	24	2	0	0	225

P/TOT	436	46	6	7	2	497	456	51	9	3	3	522	250	36	4	0	0	290
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 05

DATE: 18th January 2006

LOCATION: Navan Road/Elvana

DAY: Wednesday

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0
7:15	2	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1
7:30	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:45	4	1	0	0	0	5	0	1	0	0	0	1	0	0	0	0	0	0
H/TOT	8	1	0	0	0	9	1	1	0	0	0	2	1	0	0	0	0	1
8:00	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8:15	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0
8:30	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8:45	6	0	0	0	0	6	1	0	0	0	0	1	0	0	0	0	0	0
H/TOT	11	0	0	0	0	11	2	0	0	0	0	2	0	0	0	0	0	0
9:00	7	0	0	0	0	7	1	0	1	0	0	2	0	0	0	0	0	0
9:15	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	8	1	0	0	0	9	1	0	1	0	0	2	0	0	0	0	0	0
P/TOT	27	2	0	0	0	29	4	1	1	0	0	6	1	0	0	0	0	1

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
17:00	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1
17:45	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	4	0	0	0	0	4	1	0	0	0	0	1	1	0	0	0	0	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
18:45	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
H/TOT	2	0	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	3
P/TOT	7	0	0	0	0	7	1	0	0	0	0	1	4	1	0	0	0	5

D/TOT	34	2	0	0	0	36	5	1	1	0	0	7	5	1	0	0	0	6
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 05

DATE: 18th January 2006

LOCATION: Navan Road/Elvana

DAY: Wednesday

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	25	5	0	0	0	30	10	2	0	0	0	12	0	0	0	0	0	0
7:15	42	4	0	0	0	46	8	0	0	0	1	9	0	0	0	0	0	0
7:30	43	2	2	0	2	49	14	0	0	0	0	14	0	0	0	0	0	0
7:45	28	11	1	1	0	41	14	4	0	0	1	19	1	0	0	0	0	1
H/TOT	138	22	3	1	2	166	46	6	0	0	2	54	1	0	0	0	0	1
8:00	52	4	2	0	0	58	16	1	0	1	0	18	0	0	0	0	0	0
8:15	45	4	0	0	1	50	22	5	0	0	1	28	0	0	0	0	0	0
8:30	54	10	0	0	0	64	19	1	3	0	0	23	2	0	0	0	0	2
8:45	52	2	0	2	0	56	23	1	0	1	0	25	2	0	0	0	0	2
H/TOT	203	20	2	2	1	228	80	8	3	2	1	94	4	0	0	0	0	4
9:00	30	3	0	0	0	33	34	2	0	1	0	37	1	0	1	0	0	2
9:15	24	1	1	1	0	27	15	3	2	0	0	20	1	0	0	0	0	1
H/TOT	54	4	1	1	0	60	49	5	2	1	0	57	2	0	1	0	0	3
P/TOT	395	46	6	4	3	454	175	19	5	3	3	205	7	0	1	0	0	8

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	17	1	0	0	1	19	37	6	1	0	1	45	1	0	0	0	0	1
16:45	22	2	1	0	0	25	29	6	0	1	0	36	1	0	0	0	0	1
H/TOT	39	3	1	0	1	44	66	12	1	1	1	81	2	0	0	0	0	2
17:00	19	0	0	0	0	19	37	9	0	0	0	46	1	0	0	0	0	1
17:15	19	1	2	0	0	22	33	4	1	0	0	38	4	0	0	0	0	4
17:30	26	1	1	0	0	28	44	7	1	0	0	52	7	0	0	0	0	7
17:45	28	1	2	0	0	31	41	1	0	0	0	42	1	0	0	0	0	1
H/TOT	92	3	5	0	0	100	155	21	2	0	0	178	13	0	0	0	0	13
18:00	23	0	1	0	0	24	52	3	0	0	0	55	3	0	0	0	0	3
18:15	26	0	1	0	0	27	38	2	2	0	1	43	2	1	0	0	0	3
18:30	29	3	0	0	0	32	37	5	0	0	0	42	0	0	0	0	0	0
18:45	32	1	0	0	0	33	44	3	1	0	0	48	6	0	0	0	0	6
H/TOT	110	4	2	0	0	116	171	13	3	0	1	188	11	1	0	0	0	12
P/TOT	241	10	8	0	1	260	392	46	6	1	2	447	26	1	0	0	0	27

D/TOT	636	56	14	4	4	714	567	65	11	4	5	652	33	1	1	0	0	35
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 06

DATE: 18th January 2006

LOCATION: Navan Road/Mountain View

DAY: Wednesday

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
7:15	2	0	0	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0
7:30	4	0	0	0	0	4	1	0	0	0	0	1	2	0	0	0	0	2
7:45	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0
H/TOT	9	1	0	0	0	10	3	0	0	0	0	3	2	0	0	0	0	2
8:00	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
8:15	4	1	0	0	1	6	0	0	0	0	0	0	1	1	0	0	0	2
8:30	3	3	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0
H/TOT	10	5	0	0	1	16	1	0	0	0	0	1	1	1	0	0	0	2
9:00	3	1	0	0	0	4	2	0	0	0	0	2	1	1	0	0	0	2
9:15	3	0	0	0	0	3	2	0	0	0	0	2	2	0	0	0	0	2
H/TOT	6	1	0	0	0	7	4	0	0	0	0	4	3	1	0	0	0	4
P/TOT	25	7	0	0	1	33	8	0	0	0	0	8	6	2	0	0	0	8

TIME	MOVEMENT 1					TOT	MOVEMENT 2					TOT	MOVEMENT 3					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	1	1	0	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0
16:45	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	3	2	0	0	0	5	0	1	0	0	0	1	0	0	0	0	0	0
17:00	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
17:15	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
17:30	5	0	0	0	0	5	0	0	0	0	0	0	2	1	0	0	0	3
17:45	4	1	0	0	0	5	1	0	0	0	0	1	4	0	0	0	0	4
H/TOT	11	1	0	0	0	12	1	0	0	0	0	1	7	1	0	0	0	8
18:00	5	0	0	0	0	5	1	0	0	0	0	1	1	1	0	0	0	2
18:15	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
18:30	3	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
18:45	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
H/TOT	13	1	0	0	0	14	1	0	0	0	0	1	2	1	0	0	0	3
P/TOT	27	4	0	0	0	31	2	1	0	0	0	3	9	2	0	0	0	11

P/TOT	52	11	0	0	1	64	10	1	0	0	0	11	15	4	0	0	0	19
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 06

DATE: 18th January 2006

LOCATION: Navan Road/Mountain View

DAY: Wednesday

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
7:00	23	4	0	0	0	27	11	2	0	0	0	13	0	0	0	0	0	0
7:15	41	4	0	0	0	45	7	0	0	0	1	8	1	0	0	0	0	1
7:30	39	2	2	0	2	45	11	0	0	0	0	11	3	0	0	0	0	3
7:45	27	11	1	1	0	40	14	5	0	0	1	20	0	0	0	0	0	0
H/TOT	130	21	3	1	2	157	43	7	0	0	2	52	4	0	0	0	0	4
8:00	49	4	2	0	0	55	16	1	0	1	0	18	0	0	0	0	0	0
8:15	41	3	0	0	0	44	21	5	0	0	0	26	2	0	0	0	1	3
8:30	51	7	0	0	0	58	16	1	3	0	0	20	3	0	0	0	0	3
8:45	52	1	0	2	0	55	23	1	0	1	0	25	1	0	0	0	0	1
H/TOT	193	15	2	2	0	212	76	8	3	2	0	89	6	0	0	0	1	7
9:00	27	2	0	0	0	29	32	2	1	1	0	36	3	0	0	0	0	3
9:15	21	1	1	1	0	24	15	3	2	0	0	20	0	0	0	0	0	0
H/TOT	48	3	1	1	0	53	47	5	3	1	0	56	3	0	0	0	0	3
P/TOT	371	39	6	4	2	422	166	20	6	3	2	197	13	0	0	0	1	14

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
16:30	16	1	0	0	1	18	36	3	1	0	1	41	1	3	0	0	0	4
16:45	20	1	1	0	0	22	24	6	0	1	0	31	5	0	0	0	0	5
H/TOT	36	2	1	0	1	40	60	9	1	1	1	72	6	3	0	0	0	9
17:00	18	0	0	0	0	18	36	9	0	0	0	45	1	0	0	0	0	1
17:15	18	1	2	0	0	21	31	3	1	0	0	35	2	1	0	0	0	3
17:30	22	1	1	0	0	24	42	6	1	0	0	49	3	1	0	0	0	4
17:45	24	0	2	0	0	26	38	1	0	0	0	39	3	0	0	0	0	3
H/TOT	82	2	5	0	0	89	147	19	2	0	0	168	9	2	0	0	0	11
18:00	19	0	1	0	0	20	48	3	0	0	0	51	4	0	0	0	0	4
18:15	22	0	1	0	0	23	35	2	1	0	1	39	3	0	1	0	0	4
18:30	27	2	0	0	0	29	35	5	0	0	0	40	2	0	0	0	0	2
18:45	32	1	0	0	0	33	41	3	1	0	0	45	3	0	0	0	0	3
H/TOT	100	3	2	0	0	105	159	13	2	0	1	175	12	0	1	0	0	13
P/TOT	218	7	8	0	1	234	366	41	5	1	2	415	27	5	1	0	0	33

P/TOT	589	46	14	4	3	656	532	61	11	4	4	612	40	5	1	0	1	47
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 07

DATE: 18th January 2006

LOCATION: Kilbreckstown Road/Bellewstown Road/Navan Road/St.Clare's Nursing Home

DAY: Wednesday

	MOVEMENT 1						MOVEMENT 2						MOVEMENT 3						MOVEMENT 4					
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT
7:00	19	4	0	0	0	23	0	0	0	0	0	0	4	0	0	0	0	4	1	0	0	0	0	1
7:15	31	4	0	0	0	35	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0
7:30	26	1	2	0	0	29	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0
7:45	13	4	0	0	0	17	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0
H/TOT	89	13	2	0	0	104	0	0	0	0	0	0	12	0	0	0	0	12	1	0	0	0	0	1
8:00	27	3	0	0	0	30	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
8:15	32	4	0	0	0	36	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
8:30	38	4	0	0	0	42	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0
8:45	41	1	0	0	0	42	2	0	0	0	0	2	3	0	1	0	0	4	0	0	0	0	0	0
H/TOT	138	12	0	0	0	150	2	0	0	0	0	2	8	1	1	0	0	10	0	0	0	0	0	0
9:00	19	1	0	0	0	20	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0
9:15	19	1	1	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	38	2	1	0	0	41	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0
P/TOT	265	27	3	0	0	295	2	0	0	0	0	2	22	1	1	0	0	24	1	0	0	0	0	1

	MOVEMENT 1							MOVEMENT 2							MOVEMENT 3							MOVEMENT 4						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT				
16:30	10	0	0	0	0	10	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0				
16:45	12	1	1	0	0	14	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0				
H/TOT	22	1	1	0	0	24	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0				
17:00	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
17:15	9	1	1	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1				
17:30	9	1	0	0	0	10	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0				
17:45	14	0	0	0	0	14	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0				
H/TOT	36	2	1	0	0	39	0	0	0	0	0	0	4	0	0	0	0	4	1	0	0	0	0	1				
18:00	10	1	0	0	0	11	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0				
18:15	12	0	1	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:30	15	1	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:45	24	0	0	0	0	24	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0				
H/TOT	61	2	1	0	0	64	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0				
P/TOT	119	5	3	0	0	127	1	0	0	0	0	1	9	0	0	0	0	9	1	0	0	0	0	1				

D/TOT	384	32	6	0	0		422	3	0	0	0	0		3	31	1	1	0	0		33	2	0	0	0	0		2
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 07

DATE: 18th January 2006

LOCATION: Kilbreckstown Road/Bellewstown Road/Navan Road/St.Clare's Nursing Home

DAY: Wednesday

	MOVEMENT 5						MOVEMENT 6						MOVEMENT 7						MOVEMENT 8					
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT
7:00	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	1	1	0	1	0	3	2	0	0	0	0	2	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	6	1	0	1	0	8	2	0	0	0	0	2	0	0	0	0	0	0
8:00	0	0	0	0	0	0	2	0	1	0	0	3	1	0	0	0	0	1	0	0	0	0	0	0
8:15	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:45	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	7	1	1	2	0	11	1	0	0	0	0	1	1	0	0	0	0	1
9:00	0	0	0	0	0	0	2	1	0	0	0	3	1	0	0	0	0	1	0	0	0	0	0	0
9:15	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	4	1	0	1	0	6	1	0	0	0	0	1	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	17	3	1	4	0	25	4	0	0	0	0	4	1	0	0	0	0	1

	MOVEMENT 5						MOVEMENT 6						MOVEMENT 7						MOVEMENT 8					
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT
16:30	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
16:45	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	1	0	0	0	2	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	1	0	0	0	0	1	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	1	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
18:45	1	0	0	0	0	1	3	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	2	1	0	0	0	3	5	2	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0
P/TOT	4	2	0	0	0	6	8	4	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0

D/TOT	4	2	0	0	0	0	6	25	7	1	4	0	37	37	4	0	0	0	0	0	4	4	1	0	0	0	0	1
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 07

DATE: 18th January 2006

LOCATION: Kilbreckstown Road/Bellewstown Road/Navan Road/St.Clare's Nursing Home

DAY: Wednesday

	MOVEMENT 9							MOVEMENT 10							MOVEMENT 11							MOVEMENT 12						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT				
7:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0				
7:15	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0				
7:30	0	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	2	15	0	0	0	0	0	0				
7:45	0	0	0	0	0	0	0	0	0	0	0	0	13	6	1	0	0	20	2	0	0	0	0	2				
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	36	7	1	0	2	46	2	0	0	0	0	2				
8:00	0	1	0	0	0	1	0	0	0	0	0	0	20	1	1	0	0	22	1	0	0	0	0	1				
8:15	1	0	0	0	0	1	0	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0				
8:30	0	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0	15	0	0	0	0	0	0				
8:45	1	0	0	0	0	1	0	0	0	0	0	0	9	0	0	0	0	9	1	0	0	0	0	1				
H/TOT	2	1	0	0	0	3	0	0	0	0	0	0	49	3	1	0	0	53	2	0	0	0	0	2				
9:00	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	0	0	0	0	0	0				
9:15	1	1	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0				
H/TOT	1	1	0	0	0	2	0	0	0	0	0	0	8	1	0	0	0	9	0	0	0	0	0	0				
P/TOT	3	2	0	0	0	5	0	0	0	0	0	0	93	11	2	0	2	108	4	0	0	0	0	4				

	MOVEMENT 9							MOVEMENT 10							MOVEMENT 11							MOVEMENT 12						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT				
16:30	1	0	0	0	0	1	0	0	0	0	0	0	4	0	0	0	1	5	0	0	0	0	0	0				
16:45	1	0	0	0	0	1	0	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0				
H/TOT	2	0	0	0	0	2	0	0	0	0	0	0	11	0	0	0	1	12	0	0	0	0	0	0				
17:00	1	1	0	0	0	2	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0				
17:15	1	0	0	0	0	1	0	0	0	0	0	0	9	0	1	0	0	10	0	0	0	0	0	0				
17:30	4	0	0	0	0	4	0	0	0	0	0	0	13	0	1	0	0	14	0	0	0	0	0	0				
17:45	4	0	0	0	0	4	1	0	0	0	0	1	14	0	2	0	0	16	0	0	0	0	0	0				
H/TOT	10	1	0	0	0	11	1	0	0	0	0	1	47	0	4	0	0	51	0	0	0	0	0	0				
18:00	3	0	0	0	0	3	1	0	0	0	0	1	9	0	1	0	0	10	0	0	0	0	0	0				
18:15	4	0	0	0	0	4	0	0	0	0	0	0	9	0	0	0	0	9	0	0	0	0	0	0				
18:30	4	0	0	0	0	4	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0				
18:45	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0				
H/TOT	11	0	0	0	0	11	1	0	0	0	0	1	34	0	1	0	0	35	0	0	0	0	0	0				
P/TOT	23	1	0	0	0	24	2	0	0	0	0	2	92	0	5	0	1	98	0	0	0	0	0	0				

D/TOT	26	3	0	0	0	29	29	2	0	0	0	0	2	2	185	11	7	0	3	206	4	0	0	0	0	0	0	4
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 07

DATE: 18th January 2006

LOCATION: Kilbreckstown Road/Bellewstown Road/Navan Road/St.Clare's Nursing Home

DAY: Wednesday

	MOVEMENT 13							MOVEMENT 14							MOVEMENT 15							MOVEMENT 16						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT				
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1				
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
H/TOT	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1				
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0				
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0				
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1				
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1				
P/TOT	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	2				

	MOVEMENT 13							MOVEMENT 14							MOVEMENT 15							MOVEMENT 16						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT				
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1				
16:45	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1				
H/TOT	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2				
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3				
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1				
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
17:45	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
H/TOT	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4				
18:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1				
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1				
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	2				
P/TOT	2	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	8	0	0	0	0	8				

#####	3	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	2	10	0	0	0	0	0	10
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ABACUS TRANSPORTATION SURVEYS

STAMULLEN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION COUNTS

JANUARY 2006
ATH/06/020

SITE: 07

DATE: 18th January 2006

LOCATION: Kilbreckstown Road/Bellewstown Road/Navan Road/St.Clare's Nursing Home

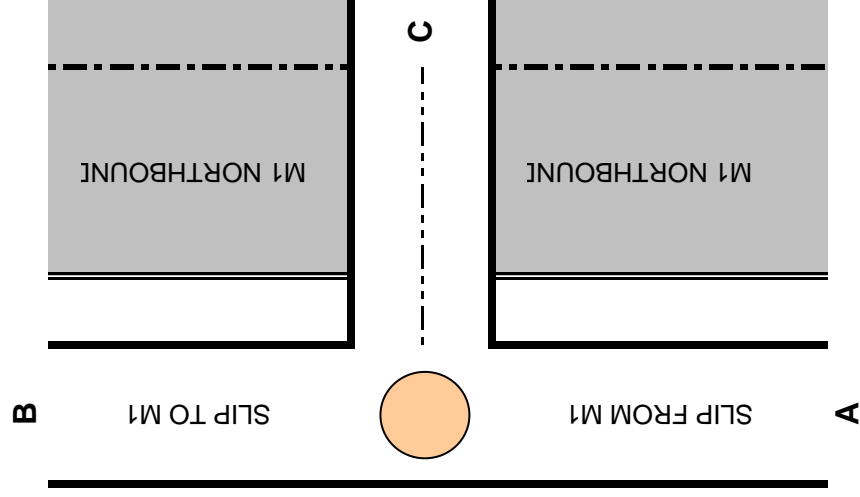
DAY: Wednesday

	MOVEMENT 17							MOVEMENT 18							MOVEMENT 19							MOVEMENT 20						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT				
7:00	0	0	0	0	0	0	6	1	0	0	0	7	1	0	0	0	0	1	4	1	0	0	0	5				
7:15	2	0	0	0	0	2	4	0	0	0	1	5	0	0	0	0	0	0	2	0	0	0	0	2				
7:30	0	0	0	0	0	0	9	0	0	0	0	9	0	0	0	0	0	0	3	0	0	0	0	3				
7:45	1	0	0	0	0	1	10	4	0	0	1	15	1	0	0	0	0	1	3	1	0	0	0	4				
H/TOT	3	0	0	0	0	3	29	5	0	0	2	36	2	0	0	0	0	2	12	2	0	0	0	14				
8:00	0	0	0	0	0	0	14	1	0	0	0	15	0	0	0	1	0	1	2	0	0	0	0	2				
8:15	0	0	0	0	0	0	15	2	0	0	0	17	3	0	0	0	0	3	3	3	0	0	0	6				
8:30	0	0	0	0	0	0	8	0	3	0	0	11	1	0	0	0	0	1	7	1	0	0	0	8				
8:45	1	0	0	0	0	1	12	1	0	0	0	13	0	0	0	1	0	1	11	0	0	0	0	11				
H/TOT	1	0	0	0	0	1	49	4	3	0	0	56	4	0	0	2	0	6	23	4	0	0	0	27				
9:00	2	0	0	0	0	2	3	2	0	0	0	5	1	0	0	1	0	2	28	0	1	0	0	29				
9:15	1	0	0	0	0	1	5	2	1	0	0	8	0	0	0	0	0	0	11	1	1	0	0	13				
H/TOT	3	0	0	0	0	3	8	4	1	0	0	13	1	0	0	1	0	2	39	1	2	0	0	42				
P/TOT	7	0	0	0	0	7	86	13	4	0	2	105	7	0	0	3	0	10	74	7	2	0	0	83				

	MOVEMENT 17							MOVEMENT 18							MOVEMENT 19							MOVEMENT 20						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT				
16:30	1	0	0	0	0	1	9	2	0	0	0	11	3	0	0	0	0	3	23	2	1	0	1	27				
16:45	0	0	0	0	0	0	7	2	0	1	0	10	0	0	0	0	0	0	17	4	0	0	0	21				
H/TOT	1	0	0	0	0	1	16	4	0	1	0	21	3	0	0	0	0	3	40	6	1	0	1	48				
17:00	1	0	0	0	0	1	12	4	0	0	0	16	2	1	0	0	0	3	21	4	0	0	0	25				
17:15	0	0	0	0	0	0	11	2	1	0	0	14	2	0	0	0	0	2	18	1	0	0	0	19				
17:30	0	0	0	0	0	0	6	2	0	0	0	8	3	0	0	0	0	3	33	4	1	0	0	38				
17:45	1	0	0	0	0	1	8	0	0	0	0	8	2	0	0	0	0	2	28	1	0	0	0	29				
H/TOT	2	0	0	0	0	2	37	8	1	0	0	46	9	1	0	0	0	10	100	10	1	0	0	111				
18:00	0	0	0	0	0	0	9	0	0	0	0	9	2	0	0	0	0	2	38	3	0	0	0	41				
18:15	1	0	0	0	0	1	6	0	0	0	0	6	2	0	0	0	0	2	26	2	1	0	1	30				
18:30	0	0	0	0	0	0	8	0	0	0	0	8	1	0	0	0	0	1	26	5	0	0	0	31				
18:45	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	3	35	3	1	0	0	39				
H/TOT	1	0	0	0	0	1	26	0	0	0	0	26	8	0	0	0	0	8	125	13	2	0	1	141				
P/TOT	4	0	0	0	0	4	79	12	1	1	0	93	20	1	0	0	0	21	265	29	4	0	2	300				

D/TOT	11	0	0	0	0	11	11	165	25	5	1	2	198	27	1	0	3	0	0	31	31	339	36	6	0	2	383
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SITE 17 PM PEAK TRAFFIC COUNTS



17:00 - 17:15		
Movement A-C	Movement C-B	
Cars	87	Cars
LGV's	9	LGV's
HGV's	2	HGV's
Buses	1	Buses
TOTALS	99	17

17:30 - 17:45		
Movement A-C	Movement C-B	
Cars	Cars	10
LGV's	LGV's	3
HGV's	HGV's	1
Buses	Buses	0
TOTALS		14

17:15 - 17:30		
Movement A-C	Movement C-B	
Cars	Cars	19
LGV's	LGV's	2
HGV's	HGV's	1
Buses	Buses	0
TOTALS		22

17:45 - 18:00		
Movement A-C	Movement C-B	
Cars	210	Cars
LGV's	18	LGV's
HGV's	1	HGV's
Buses	1	Buses
TOTALS	230	17

Total PM Peak Hour Movements	A-C	685
	C-B	70

APPENDIX B: VPICADY& VARCADY OUTPUT FILES

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 01 - Cockhill-Forgehill_2011_AM.vpi"
(drive-on-the-left) at 15:00:17 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site #01 - Cockhill-Forgehill_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Cockhill Rd N'bound
ARM B IS From Forgehill
ARM C IS Cockhill Rd S'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 01 - Cockhill-Forgehill_2

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	9.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 01 - Cockhill-Forgehill_2

08.15 - 08.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	10.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 01 - Cockhill-Forgehill_2

08.30 - 08.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	10.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 01 - Cockhill-Forgehill_2

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	9.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	1.000			
	0.0	0.0	2.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	0.72	8.09	0.089		0.00	0.10	1.4		0.14
C-AB	0.00	7.78	0.000		0.00	0.00	0.0		0.00
C-A	1.77								
A-B	0.00								
A-C	9.67								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	0.85	7.63	0.111		0.10	0.12	1.8		0.15
C-AB	0.00	7.33	0.000		0.00	0.00	0.0		0.00
C-A	2.08								
A-B	0.00								
A-C	11.36								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	0.85	7.63	0.111		0.12	0.12	1.9		0.15
C-AB	0.00	7.33	0.000		0.00	0.00	0.0		0.00
C-A	2.08								
A-B	0.00								
A-C	11.36								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	0.72	8.09	0.089		0.12	0.10	1.5		0.14	I
I	C-AB	0.00	7.78	0.000		0.00	0.00	0.0		0.00	I
I	C-A	1.77									I
I	A-B	0.00									I
I	A-C	9.67									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND (VEH)	I	47.1	I	47.1	I	6.6	I	0.14	I	6.6	I	0.14	I
I		I		I		I		I		I		I		I		I
I		I		I		I		I		I		I		I		I
I		I		I		I		I		I		I		I		I
I	B-AC	I	47.1	I	47.1	I	6.6	I	0.14	I	6.6	I	0.14	I		I
I	C-AB	I	0.0	I	0.0	I	0.0	I	0.00	I	0.0	I	0.00	I		I
I	C-A	I	115.5	I	115.5	I		I		I		I		I		I
I	A-B	I	0.0	I	0.0	I		I		I		I		I		I
I	A-C	I	630.9	I	630.9	I		I		I		I		I		I
I	ALL	I	793.5	I	793.5	I	6.6	I	0.01	I	6.6	I	0.01	I		I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .

* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.

* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 3:00:28 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 01 - Cockhill-Forgehill_2011_PM.vpi"
(drive-on-the-left) at 16:02:55 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 01 - Cockhill-Forgehill_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Cockhill Rd N'bound
ARM B IS Forgehill
ARM C IS Cockhill Rd S'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Cockhill-Forgehill_2011_PM

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.200	0.800			
		0.0	1.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		I???????	I???????	I???????			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Forgehill_2011_PM							
17.15 - 17.30							
	ARM A	0.000	0.200	0.800			
		0.0	1.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		I???????	I???????	I???????			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Forgehill_2011_PM							
17.30 - 17.45							
	ARM A	0.000	0.200	0.800			
		0.0	1.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		I???????	I???????	I???????			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Forgehill_2011_PM

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.200	0.800			
	0.0	1.0	4.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	I???????	I???????	I???????			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.00	8.32	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.21	0.000		0.00	0.00	0.0		0.00
C-A	2.45								
A-B	0.84								
A-C	3.37								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	0.00	8.10	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.02	0.000		0.00	0.00	0.0		0.00
C-A	2.88								
A-B	0.99								
A-C	3.96								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	0.00	8.10	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.02	0.000		0.00	0.00	0.0		0.00
C-A	2.88								
A-B	0.99								
A-C	3.96								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.00	8.32	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	9.21	0.000		0.00	0.00	0.0		0.00	I
I	C-A	2.45									I
I	A-B	0.84									I
I	A-C	3.37									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND (VEH)	I	DEMAND (VEH/H)	I	* QUEUEING * * DELAY *	I	* INCLUSIVE QUEUEING * * DELAY *	I
I		I		I		I	(MIN)	I	(MIN)	I
I		I		I		I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-AB	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-A	I	159.9	I	159.9	I		I		I
I	A-B	I	55.0	I	55.0	I		I		I
I	A-C	I	219.8	I	219.8	I		I		I
I	ALL	I	434.7	I	434.7	I	0.0	I	0.0	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:03:04 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 02 - Cockhill-Gracemeadow_2011_AM.vpi"
(drive-on-the-left) at 16:04:59 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 02 - Cockhill-Gracemeadow_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Cockhill Rd N'bound
ARM B IS Gracemeadow Walk
ARM C IS Cockhill Rd S'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Cockhill-Gracemeadow_2011_AM

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	6.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		1.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gracemeadow_2011_AM

08.15 - 08.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	8.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.500	0.000	0.500			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gracemeadow_2011_AM

08.30 - 08.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	8.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.500	0.000	0.500			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gracemeadow_2011_AM

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	6.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	1.000			
	1.0	0.0	1.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.27	8.87	0.143		0.00	0.17	2.4		0.13
C-AB	0.00	8.53	0.000		0.00	0.00	0.0		0.00
C-A	2.29								
A-B	0.00								
A-C	6.81								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	1.49	7.14	0.209		0.17	0.26	3.8		0.18
C-AB	0.00	8.22	0.000		0.00	0.00	0.0		0.00
C-A	2.68								
A-B	0.00								
A-C	8.00								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	1.49	7.13	0.209		0.26	0.26	3.9		0.18
C-AB	0.00	8.22	0.000		0.00	0.00	0.0		0.00
C-A	2.68								
A-B	0.00								
A-C	8.00								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	1.27	8.85	0.144		0.26	0.17	2.6		0.13	I
I	C-AB	0.00	8.53	0.000		0.00	0.00	0.0		0.00	I
I	C-A	2.29									I
I	A-B	0.00									I
I	A-C	6.81									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.2
08.30	0.3
08.45	0.3
09.00	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	82.8	I	12.7	I	12.7	I
I	C-AB	I	0.0	I	0.0	I	0.0	I
I	C-A	I	149.1	I		I		I
I	A-B	I	0.0	I		I		I
I	A-C	I	444.3	I		I		I
I	ALL	I	676.2	I	12.7	I	12.7	I
					0.02		0.02	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:05:09 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

THE USER OF THIS COMPUTER PROGRAM FOR THE SOLUTION OF AN ENGINEERING PROBLEM IS
IN NO WAY RELIEVED OF HIS RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 02 - Cockhill-Gracemeadow_2011_PM.vpi"
(drive-on-the-left) at 16:06:59 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 02 - Cockhill-Gracemeadow_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Cockhill Rd N'bound
ARM B IS Gracemeadow Walk
ARM C IS Cockhill Rd S'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Cockhill-Gracemeadow_2011_PM

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.200	0.800			
		0.0	1.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gracemeadow_2011_PM

17.15 - 17.30							
	ARM A	0.000	0.167	0.833			
		0.0	1.0	5.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gracemeadow_2011_PM

17.30 - 17.45							
	ARM A	0.000	0.167	0.833			
		0.0	1.0	5.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gracemeadow_2011_PM

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.200	0.800			
	0.0	1.0	4.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	1.0	0.0	1.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.00	8.12	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.98	0.000		0.00	0.00	0.0		0.00
C-A	2.39								
A-B	1.02								
A-C	4.06								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	0.00	7.83	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.75	0.000		0.00	0.00	0.0		0.00
C-A	2.80								
A-B	0.99								
A-C	4.97								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	0.00	7.83	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.75	0.000		0.00	0.00	0.0		0.00
C-A	2.80								
A-B	0.99								
A-C	4.97								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.00	8.12	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	8.98	0.000		0.00	0.00	0.0		0.00	I
I	C-A	2.39									I
I	A-B	1.02									I
I	A-C	4.06									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND (VEH)	I	DEMAND (VEH/H)	I	* QUEUEING * * DELAY *	I	* INCLUSIVE QUEUEING * * DELAY *	I
I		I		I		I	(MIN)	I	(MIN)	I
I		I		I		I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-AB	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-A	I	155.7	I	155.7	I		I		I
I	A-B	I	60.3	I	60.3	I		I		I
I	A-C	I	270.9	I	270.9	I		I		I
I	ALL	I	486.9	I	486.9	I	0.0	I	0.0	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 03 - Cockhill-Orchard_2011_AM.vpi"
(drive-on-the-left) at 16:08:38 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 03 - Cockhill-Orchard_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Cockhill Rd N'bound
ARM B IS Orchard Road
ARM C IS Cockhill Rd S'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Cockhill-Orchard_2011_AM

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	6.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Orchard_2011_AM							
08.15 - 08.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	8.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Orchard_2011_AM							
08.30 - 08.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	8.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Orchard_2011_AM

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	6.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	1.0	0.0	1.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	3.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	0.00	7.54	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.61	0.000		0.00	0.00	0.0		0.00
C-A	2.63								
A-B	0.00								
A-C	6.51								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	0.00	7.18	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.31	0.000		0.00	0.00	0.0		0.00
C-A	3.09								
A-B	0.00								
A-C	7.64								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	0.00	7.18	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.31	0.000		0.00	0.00	0.0		0.00
C-A	3.09								
A-B	0.00								
A-C	7.64								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	0.00	7.54	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	8.61	0.000		0.00	0.00	0.0		0.00	I
I	C-A	2.63									I
I	A-B	0.00									I
I	A-C	6.51									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	B-AC	I	0.0	0.0	0.0	0.00	0.0	0.00
I	C-AB	I	0.0	0.0	0.0	0.00	0.0	0.00
I	C-A	I	171.6	171.6	I	I	I	I
I	A-B	I	0.0	0.0	I	I	I	I
I	A-C	I	424.5	424.5	I	I	I	I
I	ALL	I	596.1	596.1	0.0	0.00	0.0	0.00

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 03 - Cockhill-Orchard_2011_PM.vpi"
(drive-on-the-left) at 16:10:16 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 03 - Cockhill-Orchard_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Cockhill Rd N'bound
ARM B IS Orchard Road
ARM C IS Cockhill Rd S'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Cockhill-Orchard_2011_PM

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	5.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Orchard_2011_PM							
17.15 - 17.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	6.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Orchard_2011_PM							
17.30 - 17.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	6.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		1.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Orchard_2011_PM

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	5.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	1.0	0.0	1.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.00	7.91	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.95	0.000		0.00	0.00	0.0		0.00
C-A	2.47								
A-B	0.00								
A-C	5.20								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	0.00	7.62	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.72	0.000		0.00	0.00	0.0		0.00
C-A	2.90								
A-B	0.00								
A-C	6.10								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	0.00	8.44	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.50	0.000		0.00	0.00	0.0		0.00
C-A	2.90								
A-B	0.00								
A-C	3.10								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.00	7.91	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	8.95	0.000		0.00	0.00	0.0		0.00	I
I	C-A	2.47									I
I	A-B	0.00									I
I	A-C	5.20									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	0.0	I	0.0	I	0.0	I
I	C-AB	I	0.0	I	0.0	I	0.0	I
I	C-A	I	161.1	I		I		I
I	A-B	I	0.0	I		I		I
I	A-C	I	294.0	I		I		I
I	ALL	I	455.1	I	0.0	I	0.0	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 04 - Cockhill-Gormanstown_2011_AM.vpi"
(drive-on-the-left) at 16:12:14 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 04 - Cockhill-Gormanstown_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Navan Rd E'bound
ARM B IS Cockhill Rd N'bound
ARM C IS Gormanstown Rd W'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Cockhill-Gormanstown_2011_AM

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.750	0.250			
		0.0	6.0	2.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.667	0.000	0.333			
		2.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.500	0.500	0.000			
		1.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gormanstown_2011_AM

08.15 - 08.30							
	ARM A	0.000	0.778	0.222			
		0.0	7.0	2.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.667	0.000	0.333			
		2.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.500	0.500	0.000			
		1.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gormanstown_2011_AM

08.30 - 08.45							
	ARM A	0.000	0.778	0.222			
		0.0	7.0	2.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.667	0.000	0.333			
		2.0	0.0	1.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.500	0.500	0.000			
		1.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gormanstown_2011_AM

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.750	0.250			
	0.0	6.0	2.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.667	0.000	0.333			
	2.0	0.0	1.0			
	(10.0)	(0.0)	(10.0)			
ARM C	0.500	0.500	0.000			
	1.0	1.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	2.74	7.77	0.353		0.00	0.53	7.5		0.20
C-AB	1.01	8.98	0.112		0.00	0.14	2.1		0.13
C-A	0.80								
A-B	5.62								
A-C	1.87								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	3.22	7.55	0.427		0.53	0.73	10.4		0.23
C-AB	1.21	8.76	0.138		0.14	0.18	2.7		0.13
C-A	0.92								
A-B	6.84								
A-C	1.95								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	3.22	7.55	0.427		0.73	0.73	11.0		0.23
C-AB	1.21	8.76	0.138		0.18	0.18	2.7		0.13
C-A	0.92								
A-B	6.84								
A-C	1.95								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	2.74	7.77	0.353		0.73	0.56	8.7		0.20	I
I	C-AB	1.01	8.98	0.112		0.18	0.14	2.1		0.13	I
I	C-A	0.80									I
I	A-B	5.62									I
I	A-C	1.87									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.5	*
08.30	0.7	*
08.45	0.7	*
09.00	0.6	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.2
08.45	0.2
09.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	I	(VEH)	I	(MIN)	I	(MIN)	I
I	I	I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	178.8	I	37.6	I	37.6	I
I	C-AB	I	66.5	I	9.7	I	9.7	I
I	C-A	I	51.7	I	I	I	I	I
I	A-B	I	373.6	I	I	I	I	I
I	A-C	I	114.8	I	I	I	I	I
I	ALL	I	785.4	I	47.3	I	47.3	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 04 - Cockhill-Gormanstown_2011_PM.vpi"
(drive-on-the-left) at 16:13:49 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 04 - Cockhill-Gormanstown_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Navan Rd E'bound
ARM B IS Cockhill Rd N'bound
ARM C IS Gormanstown Rd W'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Cockhill-Gormanstown_2011_PM

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.750	0.250			
		0.0	3.0	1.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.667	0.333	0.000			
		4.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gormanstown_2011_PM

17.15 - 17.30							
	ARM A	0.000	0.800	0.200			
		0.0	4.0	1.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.714	0.286	0.000			
		5.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gormanstown_2011_PM

17.30 - 17.45							
	ARM A	0.000	0.800	0.200			
		0.0	4.0	1.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.714	0.286	0.000			
		5.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Cockhill-Gormanstown_2011_PM

TIME	TURNING PROPORTIONS					
	TURNING COUNTS (PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.750	0.250			
	0.0	3.0	1.0			
	(0.0)	(10.0)	(10.0)			
ARM B	1.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	0.667	0.333	0.000			
	4.0	2.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	2.48	6.65	0.373		0.00	0.58	8.1		0.24
C-AB	2.88	11.72	0.246		0.00	0.44	6.5		0.11
C-A	2.93								
A-B	3.34								
A-C	1.11								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	2.92	6.40	0.456		0.58	0.81	11.6		0.28
C-AB	3.23	12.21	0.265		0.44	0.52	7.9		0.11
C-A	3.59								
A-B	4.18								
A-C	1.04								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	2.92	6.40	0.456		0.81	0.82	12.3		0.29
C-AB	3.23	12.21	0.265		0.52	0.53	8.0		0.11
C-A	3.59								
A-B	4.18								
A-C	1.04								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	2.48	6.64	0.373		0.82	0.61	9.6		0.24	I
I	C-AB	2.89	11.73	0.247		0.53	0.46	6.8		0.11	I
I	C-A	2.92									I
I	A-B	3.34									I
I	A-C	1.11									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.6	*
17.30	0.8	*
17.45	0.8	*
18.00	0.6	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.4	
17.30	0.5	*
17.45	0.5	*
18.00	0.5	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	B-AC	I	162.0	I	41.5	I	0.26	I
I	C-AB	I	183.6	I	29.2	I	0.16	I
I	C-A	I	195.3	I		I		I
I	A-B	I	225.4	I		I		I
I	A-C	I	64.7	I		I		I
I	ALL	I	831.0	I	70.7	I	0.09	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:14:01 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 05 - Gormanstown-Elvana_2011_AM.vpi"
(drive-on-the-left) at 16:16:09 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 05 - Gormanstown-Elvana_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Navan Rd E'bound
ARM B IS Elvana
ARM C IS Gormanstown Rd W'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Gormanstown-Elvana_2011_AM

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	6.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-Elvana_2011_AM							
08.15 - 08.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	7.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-Elvana_2011_AM							
08.30 - 08.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	7.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-Elvana_2011_AM

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	6.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	3.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	0.00	7.57	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.66	0.000		0.00	0.00	0.0		0.00
C-A	2.89								
A-B	0.00								
A-C	6.30								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	0.00	7.21	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.38	0.000		0.00	0.00	0.0		0.00
C-A	3.39								
A-B	0.00								
A-C	7.39								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	0.00	7.21	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.38	0.000		0.00	0.00	0.0		0.00
C-A	3.39								
A-B	0.00								
A-C	7.39								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	0.00	7.57	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	8.66	0.000		0.00	0.00	0.0		0.00	I
I	C-A	2.89									I
I	A-B	0.00									I
I	A-C	6.30									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	0.0	I	0.0	I	0.0	I
I	C-AB	I	0.0	I	0.0	I	0.0	I
I	C-A	I	188.4	I	I	I	I	I
I	A-B	I	0.0	I	I	I	I	I
I	A-C	I	410.7	I	I	I	I	I
I	ALL	I	599.1	I	0.0	I	0.0	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 05 - Gormanstown-Elvana_2011_PM.vpi"
(drive-on-the-left) at 16:17:43 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 05 - Gormanstown-Elvana_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Navan Rd E'bound
ARM B IS Elvana
ARM C IS Gormanstown Rd W'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Gormanstown-Elvana_2011_PM

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		6.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-Elvana_2011_PM							
17.15 - 17.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		7.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-Elvana_2011_PM							
17.30 - 17.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		7.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-Elvana_2011_PM

TIME	TURNING PROPORTIONS					
	TURNING COUNTS (PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	3.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	6.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.00	8.11	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.52	0.000		0.00	0.00	0.0		0.00
C-A	6.00								
A-B	0.00								
A-C	3.03								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	0.00	7.84	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.38	0.000		0.00	0.00	0.0		0.00
C-A	7.04								
A-B	0.00								
A-C	3.56								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	0.00	7.84	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.38	0.000		0.00	0.00	0.0		0.00
C-A	7.04								
A-B	0.00								
A-C	3.56								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.00	8.11	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	9.52	0.000		0.00	0.00	0.0		0.00	I
I	C-A	6.00									I
I	A-B	0.00									I
I	A-C	3.03									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND (VEH)	I	DEMAND (VEH/H)	I	* QUEUEING * * DELAY *	I	* INCLUSIVE QUEUEING * * DELAY *	I
I		I		I		I	(MIN)	I	(MIN)	I
I		I		I		I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-AB	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-A	I	391.2	I	391.2	I		I		I
I	A-B	I	0.0	I	0.0	I		I		I
I	A-C	I	197.7	I	197.7	I		I		I
I	ALL	I	588.9	I	588.9	I	0.0	I	0.0	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .

* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.

* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:17:55 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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EMAIL: SoftwareBureau@trl.co.uk

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\
Site 06 - Gormanstown-MountainView_2011_AM.vpi"
(drive-on-the-left) at 16:19:19 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 6 - Gormanstown-MountainView_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)

I
I
I
I
I
I
I

MINOR ROAD (ARM B)

ARM A IS Navan Rd E'bound
ARM B IS Mountain View
ARM C IS Gormanstown Rd W'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Gormanstown-MountainView_2011_

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	6.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	3.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	0.00	7.64	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.73	0.000		0.00	0.00	0.0		0.00
C-A	2.85								
A-B	0.00								
A-C	6.04								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	0.00	7.30	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.46	0.000		0.00	0.00	0.0		0.00
C-A	3.34								
A-B	0.00								
A-C	7.09								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	0.00	7.30	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	8.46	0.000		0.00	0.00	0.0		0.00
C-A	3.34								
A-B	0.00								
A-C	7.09								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	0.00	7.64	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	8.73	0.000		0.00	0.00	0.0		0.00	I
I	C-A	2.85									I
I	A-B	0.00									I
I	A-C	6.04									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	B-AC	I	0.0	0.0	0.0	0.00	0.0	0.00
I	C-AB	I	0.0	0.0	0.0	0.00	0.0	0.00
I	C-A	I	185.7	185.7	I	I	I	I
I	A-B	I	0.0	0.0	I	I	I	I
I	A-C	I	393.9	393.9	I	I	I	I
I	ALL	I	579.6	579.6	0.0	0.00	0.0	0.00

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:19:28 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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EMAIL: SoftwareBureau@trl.co.uk

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\
Site 06 - Gormanstown-MountainView_2011_PM.vpi"
(drive-on-the-left) at 16:23:01 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 06 - Gormanstown-MountainView_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Navan Rd E'bound
ARM B IS Mountain View
ARM C IS Gormanstown Rd W'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Gormanstown-MountainView_2011_

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		6.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-MountainView_2011_							
17.15 - 17.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		7.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-MountainView_2011_							
17.30 - 17.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		7.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-MountainView_2011_

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	3.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	6.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.00	8.16	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.54	0.000		0.00	0.00	0.0		0.00
C-A	5.78								
A-B	0.00								
A-C	2.96								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	0.00	7.90	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.41	0.000		0.00	0.00	0.0		0.00
C-A	6.79								
A-B	0.00								
A-C	3.47								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	0.00	7.90	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	9.41	0.000		0.00	0.00	0.0		0.00
C-A	6.79								
A-B	0.00								
A-C	3.47								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.00	8.16	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	9.54	0.000		0.00	0.00	0.0		0.00	I
I	C-A	5.78									I
I	A-B	0.00									I
I	A-C	2.96									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND (VEH)	I	50TH PERCENTILE DELAY (MIN)	I	* QUEUEING * * DELAY * (MIN/VEH)	I	* INCLUSIVE QUEUEING * * DELAY * (MIN)	I	* INCLUSIVE QUEUEING * * DELAY * (MIN/VEH)	I
I	B-AC	I	0.0	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-AB	I	0.0	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-A	I	377.1	I	377.1	I	I	I	I	I	I	I
I	A-B	I	0.0	I	0.0	I	I	I	I	I	I	I
I	A-C	I	192.9	I	192.9	I	I	I	I	I	I	I
I	ALL	I	570.0	I	570.0	I	0.0	I	0.0	I	0.0	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

A R C A D Y 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 4.0 (FEBRUARY 2006)

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Run with file:-

"s:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 07 - Navan Road Roundabout AM.vai"
(drive-on-the-left) at 15:55:31 on Friday, 20 July 2007

FILE PROPERTIES

RUN TITLE: Site 07 - Navan Road Roundabout AM Peak
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - From Bellewstown Road Eastbound
ARM B - From Kilbreckan Road Southbound
ARM C - From Gormanstown Road Westbound
ARM D - From Nursing Home
ARM E - From Navan Road Northbound

GEOMETRIC DATA

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I	ARM A	I	3.75	I	7.00	I	15.00	I	15.00	I	35.00	I	51.0	I	0.597	I	26.077
I	ARM B	I	3.75	I	7.00	I	15.00	I	15.00	I	35.00	I	51.0	I	0.597	I	26.077
I	ARM C	I	3.75	I	7.00	I	15.00	I	15.00	I	35.00	I	52.0	I	0.594	I	25.978
I	ARM D	I	3.25	I	4.50	I	10.00	I	15.00	I	35.00	I	51.0	I	0.511	I	19.056
I	ARM E	I	3.75	I	7.00	I	15.00	I	15.00	I	35.00	I	51.0	I	0.597	I	26.077

V = approach half-width	L = effective flare length	D = inscribed circle diameter
E = entry width	R = entry radius	PHI = entry angle

TRAFFIC DEMAND DATA

(Only sets included in the current run are shown)

I ARM I FLOW SCALE(%) I			
I A	I	100	I
I B	I	100	I
I C	I	100	I
I D	I	100	I
I E	I	100	I

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.
DEMAND SET TITLE: Navan Road Roundabout AM Peak

DEMAND SET TITLE: Navan Road Roundabout AM Peak

		TURNING PROPORTIONS							
		TURNING COUNTS							
		(PERCENTAGE OF H.V.S)							
TIME		FROM/TO	ARM A	ARM B	ARM C	ARM D	ARM E		
08.00 - 08.15	ARM A	I	0.000	0.023	0.932	0.023	0.023		
		I	0.0	0.0	0.8	0.0	0.0		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		
	ARM B	I	0.013	0.000	0.919	0.010	0.058		
		I	0.1	0.0	3.6	0.0	0.2		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		
	ARM C	I	0.176	0.308	0.000	0.007	0.509		
		I	0.5	0.8	0.0	0.0	1.4		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		
	ARM D	I	0.000	1.000	0.000	0.000	0.000		
		I	0.0	0.0	0.0	0.0	0.0		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		
	ARM E	I	0.030	0.012	0.935	0.024	0.000		
		I	0.1	0.0	1.6	0.0	0.0		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		
08.15 - 08.30	ARM A	I	0.000	0.020	0.941	0.020	0.020		
		I	0.0	0.0	1.0	0.0	0.0		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		
	ARM B	I	0.013	0.000	0.920	0.009	0.058		
		I	0.1	0.0	4.3	0.0	0.3		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		
	ARM C	I	0.177	0.307	0.000	0.006	0.509		
		I	0.6	1.0	0.0	0.0	1.6		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		
	ARM D	I	0.000	1.000	0.000	0.000	0.000		
		I	0.0	0.0	0.0	0.0	0.0		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		
	ARM E	I	0.030	0.010	0.939	0.020	0.000		
		I	0.1	0.0	1.9	0.0	0.0		
		I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)	I (10.0)		

DEMAND SET TITLE: Navan Road Roundabout AM Peak

TIME	TURNING PROPORTIONS TURNING COUNTS (PERCENTAGE OF H.V.S)									
	FROM/TO	ARM A	ARM B	ARM C	ARM D	ARM E				
08.30 - 08.45	ARM A	0.000 0.0 (10.0)	0.020 0.0 (10.0)	0.941 1.0 (10.0)	0.020 0.0 (10.0)	0.020 0.0 (10.0)				
	ARM B	0.013 0.1 (10.0)	0.000 0.0 (10.0)	0.920 4.3 (10.0)	0.009 0.0 (10.0)	0.058 0.3 (10.0)				
	ARM C	0.177 0.6 (10.0)	0.307 1.0 (10.0)	0.000 0.0 (10.0)	0.006 0.0 (10.0)	0.509 1.6 (10.0)				
	ARM D	0.000 0.0 (10.0)	1.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)				
	ARM E	0.030 0.1 (10.0)	0.010 0.0 (10.0)	0.939 1.9 (10.0)	0.020 0.0 (10.0)	0.000 0.0 (10.0)				
08.45 - 09.00	ARM A	0.000 0.0 (10.0)	0.023 0.0 (10.0)	0.932 0.8 (10.0)	0.023 0.0 (10.0)	0.023 0.0 (10.0)				
	ARM B	0.013 0.1 (10.0)	0.000 0.0 (10.0)	0.919 3.6 (10.0)	0.010 0.0 (10.0)	0.058 0.2 (10.0)				
	ARM C	0.176 0.5 (10.0)	0.308 0.8 (10.0)	0.000 0.0 (10.0)	0.007 0.0 (10.0)	0.509 1.4 (10.0)				
	ARM D	0.000 0.0 (10.0)	1.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)				
	ARM E	0.030 0.1 (10.0)	0.012 0.0 (10.0)	0.935 1.6 (10.0)	0.024 0.0 (10.0)	0.000 0.0 (10.0)				

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
ARM A	0.88	22.21	0.040		0.0	0.0	0.6		0.05
ARM B	3.96	22.23	0.178		0.0	0.2	3.2		0.05
ARM C	2.74	23.38	0.117		0.0	0.1	2.0		0.05
ARM D	0.02	15.78	0.001		0.0	0.0	0.0		0.06
ARM E	1.69	22.87	0.074		0.0	0.1	1.2		0.05

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.15-08.30										I
I	ARM A	1.03	21.95	0.047		0.0	0.0	0.7		0.05	I
I	ARM B	4.64	21.96	0.211		0.2	0.3	3.9		0.06	I
I	ARM C	3.22	23.35	0.138		0.1	0.2	2.4		0.05	I
I	ARM D	0.02	15.50	0.001		0.0	0.0	0.0		0.06	I
I	ARM E	1.99	22.72	0.088		0.1	0.1	1.4		0.05	I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.30-08.45										I
I	ARM A	1.03	21.95	0.047		0.0	0.0	0.7		0.05	I
I	ARM B	4.64	21.96	0.211		0.3	0.3	4.0		0.06	I
I	ARM C	3.22	23.35	0.138		0.2	0.2	2.4		0.05	I
I	ARM D	0.02	15.50	0.001		0.0	0.0	0.0		0.06	I
I	ARM E	1.99	22.72	0.088		0.1	0.1	1.4		0.05	I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.45-09.00										I
I	ARM A	0.88	22.21	0.040		0.0	0.0	0.6		0.05	I
I	ARM B	3.96	22.22	0.178		0.3	0.2	3.3		0.05	I
I	ARM C	2.74	23.38	0.117		0.2	0.1	2.0		0.05	I
I	ARM D	0.02	15.77	0.001		0.0	0.0	0.0		0.06	I
I	ARM E	1.69	22.87	0.074		0.1	0.1	1.2		0.05	I

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.2
08.30	0.3
08.45	0.3
09.00	0.2

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.2
08.45	0.2
09.00	0.1

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE AT ARM E

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	ARM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	A	I	57.3	I 57.3	I 2.7	I 0.05	I 2.7	I 0.05
I	B	I	258.0	I 258.0	I 14.4	I 0.06	I 14.4	I 0.06
I	C	I	178.8	I 178.8	I 8.7	I 0.05	I 8.7	I 0.05
I	D	I	1.2	I 1.2	I 0.1	I 0.06	I 0.1	I 0.06
I	E	I	110.4	I 110.4	I 5.2	I 0.05	I 5.2	I 0.05
I	ALL	I	605.7	I 605.7	I 31.2	I 0.05	I 31.2	I 0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.

* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.

* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 3:55:44 PM on 7/20/2007]

A R C A D Y 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 4.0 (FEBRUARY 2006)

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IN NO WAY RELIEVED OF THEIR RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

Run with file:-

"s:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 07 - Navan Road Roundabout PM.vai"
(drive-on-the-left) at 15:58:47 on Friday, 20 July 2007

FILE PROPERTIES

RUN TITLE: Site 07 - Navan Road Roundabout PM Peak
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - From Bellewstown Road Eastbound
ARM B - From Kilbreckan Road Southbound
ARM C - From Gormanstown Road Westbound
ARM D - From Nursing Home
ARM E - From Navan Road Northbound

GEOMETRIC DATA

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I	ARM A	I	3.75	I	7.00	I	15.00	I	15.00	I	35.00	I	51.0	I	0.597	I	26.077
I	ARM B	I	3.75	I	7.00	I	15.00	I	15.00	I	35.00	I	51.0	I	0.597	I	26.077
I	ARM C	I	3.75	I	7.00	I	15.00	I	15.00	I	35.00	I	52.0	I	0.594	I	25.978
I	ARM D	I	3.25	I	4.50	I	10.00	I	15.00	I	35.00	I	51.0	I	0.511	I	19.056
I	ARM E	I	3.75	I	7.00	I	15.00	I	15.00	I	35.00	I	51.0	I	0.597	I	26.077

V = approach half-width
E = entry width

L = effective flare length
R = entry radius

D = inscribed circle diameter
PHI = entry angle

TRAFFIC DEMAND DATA

(Only sets included in the current run are shown)

I	ARM	I	FLOW	SCALE(%)	I
I	A	I	100		I
I	B	I	100		I
I	C	I	100		I
I	D	I	100		I
I	E	I	100		I

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.
DEMAND SET TITLE: Navan Road Roundabout PM Peak

DEMAND SET TITLE: Navan Road Roundabout PM Peak

		TURNING PROPORTIONS						
		TURNING COUNTS						
		(PERCENTAGE OF H.V.S)						
		FROM/TO	ARM A	ARM B	ARM C	ARM D	ARM E	
TIME								
17.00 - 17.15	ARM A	I	0.000	I	0.163	I	0.837	I
		I	0.0	I	0.1	I	0.4	I
		I	(10.0)	I	(10.0)	I	(10.0)	I
	ARM B	I	0.035	I	0.000	I	0.895	I
		I	0.1	I	0.0	I	1.3	I
		I	(10.0)	I	(10.0)	I	(10.0)	I
	ARM C	I	0.173	I	0.530	I	0.000	I
		I	1.0	I	3.0	I	0.0	I
		I	(10.0)	I	(10.0)	I	(10.0)	I
	ARM D	I	0.000	I	0.000	I	0.778	I
		I	0.0	I	0.0	I	0.1	I
		I	(10.0)	I	(10.0)	I	(10.0)	I
	ARM E	I	0.132	I	0.046	I	0.821	I
		I	0.2	I	0.1	I	1.2	I
		I	(10.0)	I	(10.0)	I	(10.0)	I
17.15 - 17.30	ARM A	I	0.000	I	0.157	I	0.843	I
		I	0.0	I	0.1	I	0.4	I
		I	(10.0)	I	(10.0)	I	(10.0)	I
	ARM B	I	0.036	I	0.000	I	0.893	I
		I	0.1	I	0.0	I	1.5	I
		I	(10.0)	I	(10.0)	I	(10.0)	I
	ARM C	I	0.173	I	0.530	I	0.000	I
		I	1.1	I	3.5	I	0.0	I
		I	(10.0)	I	(10.0)	I	(10.0)	I
	ARM D	I	0.000	I	0.000	I	0.818	I
		I	0.0	I	0.0	I	0.1	I
		I	(10.0)	I	(10.0)	I	(10.0)	I
	ARM E	I	0.136	I	0.045	I	0.819	I
		I	0.2	I	0.1	I	1.5	I
		I	(10.0)	I	(10.0)	I	(10.0)	I

DEMAND SET TITLE: Navan Road Roundabout PM Peak

TIME	TURNING PROPORTIONS TURNING COUNTS (PERCENTAGE OF H.V.S)									
	FROM/TO	ARM A	ARM B	ARM C	ARM D	ARM E				
17.30 - 17.45	ARM A	0.000	0.157	0.843	0.000	0.000				
		0.0	0.1	0.4	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				
	ARM B	0.036	0.000	0.893	0.000	0.071				
		0.1	0.0	1.5	0.0	0.1				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				
	ARM C	0.173	0.530	0.000	0.006	0.290				
		1.1	3.5	0.0	0.0	1.9				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				
	ARM D	0.000	0.000	0.818	0.000	0.182				
		0.0	0.0	0.1	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				
	ARM E	0.136	0.045	0.819	0.000	0.000				
		0.2	0.1	1.5	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				
17.45 - 18.00	ARM A	0.000	0.163	0.837	0.000	0.000				
		0.0	0.1	0.4	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				
	ARM B	0.035	0.000	0.895	0.000	0.070				
		0.1	0.0	1.3	0.0	0.1				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				
	ARM C	0.173	0.530	0.000	0.007	0.289				
		1.0	3.0	0.0	0.0	1.6				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				
	ARM D	0.000	0.000	0.778	0.000	0.222				
		0.0	0.0	0.1	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				
	ARM E	0.132	0.046	0.821	0.000	0.000				
		0.2	0.1	1.2	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)	(10.0)				

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
ARM A	0.44	21.12	0.021		0.0	0.0	0.3		0.05
ARM B	1.44	22.71	0.063		0.0	0.1	1.0		0.05
ARM C	5.60	23.53	0.238		0.0	0.3	4.6		0.06
ARM D	0.09	14.41	0.006		0.0	0.0	0.1		0.07
ARM E	1.51	21.29	0.071		0.0	0.1	1.1		0.05

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.15-17.30										I
I	ARM A	0.51	20.66	0.025		0.0	0.0	0.4		0.05	I
I	ARM B	1.69	22.53	0.075		0.1	0.1	1.2		0.05	I
I	ARM C	6.57	23.51	0.279		0.3	0.4	5.7		0.06	I
I	ARM D	0.11	13.89	0.008		0.0	0.0	0.1		0.07	I
I	ARM E	1.77	20.86	0.085		0.1	0.1	1.4		0.05	I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.30-17.45										I
I	ARM A	0.51	20.66	0.025		0.0	0.0	0.4		0.05	I
I	ARM B	1.69	22.53	0.075		0.1	0.1	1.2		0.05	I
I	ARM C	6.57	23.51	0.279		0.4	0.4	5.8		0.06	I
I	ARM D	0.11	13.89	0.008		0.0	0.0	0.1		0.07	I
I	ARM E	1.77	20.86	0.085		0.1	0.1	1.4		0.05	I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	ARM A	0.44	21.11	0.021		0.0	0.0	0.3		0.05	I
I	ARM B	1.44	22.70	0.063		0.1	0.1	1.0		0.05	I
I	ARM C	5.60	23.53	0.238		0.4	0.3	4.8		0.06	I
I	ARM D	0.09	14.40	0.006		0.0	0.0	0.1		0.07	I
I	ARM E	1.51	21.28	0.071		0.1	0.1	1.2		0.05	I

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.1
17.30	0.1
17.45	0.1
18.00	0.1

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.3
17.30	0.4
17.45	0.4
18.00	0.3

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE AT ARM E

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.1
17.30	0.1
17.45	0.1
18.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	ARM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(VEH/H)	I	(MIN)	I
I		I		I		I	(MIN/VEH)	I
I	A	I	28.5	I	28.5	I	1.4	I
I	B	I	93.9	I	93.9	I	4.4	I
I	C	I	365.1	I	365.1	I	20.8	I
I	D	I	6.0	I	6.0	I	0.4	I
I	E	I	98.4	I	98.4	I	5.0	I
I	ALL	I	591.9	I	591.9	I	32.1	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 3:58:55 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 08 - Harefield-Gormanstown_2011_AM.vpi"
(drive-on-the-left) at 16:25:12 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 08 - Harefield-Gormanstown_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Gormanstown Rd Eastbound
ARM B IS From Harefield
ARM C IS Gormanstown Rd Westbound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 08 - Harefield-Gormanstow

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.667	0.333	0.000			
		2.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 08 - Harefield-Gormanstown

08.15 - 08.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.667	0.333	0.000			
		2.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 08 - Harefield-Gormanstown

08.30 - 08.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.667	0.333	0.000			
		2.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 08 - Harefield-Gormanstown

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	3.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	1.000			
	0.0	0.0	2.0			
	(10.0)	(0.0)	(10.0)			
ARM C	0.667	0.333	0.000			
	2.0	1.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.73	9.87	0.175		0.00	0.21	3.0		0.12
C-AB	0.91	10.50	0.086		0.00	0.11	1.7		0.10
C-A	1.42								
A-B	0.00								
A-C	3.15								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	2.03	9.72	0.209		0.21	0.26	3.8		0.13
C-AB	1.10	10.54	0.104		0.11	0.14	2.1		0.11
C-A	1.64								
A-B	0.00								
A-C	3.70								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	2.03	9.72	0.209		0.26	0.26	3.9		0.13
C-AB	1.10	10.54	0.104		0.14	0.14	2.2		0.11
C-A	1.64								
A-B	0.00								
A-C	3.70								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	1.73	9.87	0.175		0.26	0.21	3.3		0.12	I
I	C-AB	0.91	10.50	0.087		0.14	0.12	1.7		0.10	I
I	C-A	1.42									I
I	A-B	0.00									I
I	A-C	3.15									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.2
08.30	0.3
08.45	0.3
09.00	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	112.8	I	14.1	I	14.1	I
I	C-AB	I	60.3	I	7.7	I	7.7	I
I	C-A	I	91.8	I		I		I
I	A-B	I	0.0	I		I		I
I	A-C	I	205.5	I		I		I
I	ALL	I	470.4	I	21.8	I	21.8	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:25:22 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 08 - Harefield-Gormanstown_2011_PM.vpi"
(drive-on-the-left) at 16:27:36 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 08 - Harefield-Gormanstown_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Gormanstown Rd Eastbound
ARM B IS From Harefield
ARM C IS Gormanstown Rd Westbound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 08 - Harefield-Gormanstow

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.750	0.250	0.000			
		6.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 08 - Harefield-Gormanstown

17.15 - 17.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.778	0.222	0.000			
		7.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 08 - Harefield-Gormanstown

17.30 - 17.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.778	0.222	0.000			
		7.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 08 - Harefield-Gormanstown

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	3.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	1.000			
	0.0	0.0	2.0			
	(10.0)	(0.0)	(10.0)			
ARM C	0.750	0.250	0.000			
	6.0	2.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	1.10	10.36	0.106		0.00	0.12	1.7		0.11
C-AB	3.14	13.49	0.233		0.00	0.45	6.7		0.10
C-A	4.31								
A-B	0.00								
A-C	1.34								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.29	10.30	0.125		0.12	0.14	2.1		0.11
C-AB	3.72	14.24	0.262		0.45	0.56	8.5		0.10
C-A	5.03								
A-B	0.00								
A-C	1.57								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.29	10.30	0.125		0.14	0.14	2.1		0.11
C-AB	3.73	14.24	0.262		0.56	0.56	8.5		0.10
C-A	5.02								
A-B	0.00								
A-C	1.57								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	1.10	10.36	0.106		0.14	0.12	1.8		0.11	I
I	C-AB	3.16	13.50	0.234		0.56	0.47	7.0		0.10	I
I	C-A	4.29									I
I	A-B	0.00									I
I	A-C	1.34									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.1
17.30	0.1
17.45	0.1
18.00	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.5	
17.30	0.6	*
17.45	0.6	*
18.00	0.5	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	I	I	I	I	I	I	I
I	I	I	(VEH)	I	(MIN)	I	(MIN)	I
I	I	I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	71.7	I	7.8	I	7.8	I
I	C-AB	I	206.2	I	30.6	I	30.7	I
I	C-A	I	279.8	I	I	I	I	I
I	A-B	I	0.0	I	I	I	I	I
I	A-C	I	87.3	I	I	I	I	I
I	ALL	I	645.0	I	38.4	I	38.4	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:27:45 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 09 - M1 Link-Gormanstown_2011_AM.vpi"
(drive-on-the-left) at 16:29:20 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 09 - New M1 Link-Gormanstown_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Gormanstown Rd Eastbound
ARM B IS New M1 Link Southbound
ARM C IS Gormanstown Rd Westbound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 120.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 120.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.75 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	752.00	0.29	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	621.50	0.28	0.11	0.18	0.41	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 09 - M1-Gormanstown_2011_

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.800	0.200			
		0.0	4.0	1.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		6.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 09 - M1-Gormanstown_2011_							
08.15 - 08.30							
	ARM A	0.000	0.833	0.167			
		0.0	5.0	1.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.500	0.500	0.000			
		1.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 09 - M1-Gormanstown_2011_							
08.30 - 08.45							
	ARM A	0.000	0.833	0.167			
		0.0	5.0	1.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.500	0.500	0.000			
		1.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 09 - M1-Gormanstown_2011_

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.800	0.200			
	0.0	4.0	1.0			
	(0.0)	(10.0)	(10.0)			
ARM B	1.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	1.0	1.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.61	8.46	0.190		0.00	0.23	3.3		0.15
C-AB	0.00	9.08	0.000		0.00	0.00	0.0		0.00
C-A	1.45								
A-B	3.78								
A-C	0.94								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	1.89	8.14	0.232		0.23	0.30	4.4		0.16
C-AB	0.93	9.44	0.099		0.00	0.12	1.8		0.12
C-A	0.77								
A-B	4.62								
A-C	0.92								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	1.89	8.13	0.232		0.30	0.30	4.5		0.16
C-AB	0.93	9.44	0.099		0.12	0.12	1.8		0.12
C-A	0.77								
A-B	4.62								
A-C	0.92								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	1.61	8.46	0.190		0.30	0.24	3.7		0.15	I
I	C-AB	0.00	10.04	0.000		0.12	0.00	0.0		0.00	I
I	C-A	1.45									I
I	A-B	3.78									I
I	A-C	0.94									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.2
08.30	0.3
08.45	0.3
09.00	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.1
08.45	0.1
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND (VEH)	I	105.0	I	105.0	I	15.9	I	0.15	I	15.9	I	0.15	I
I		I		I		I		I		I		I		I		I
I		I		I		I		I		I		I		I		I
I		I		I		I		I		I		I		I		I
I	B-AC	I	105.0	I	105.0	I	15.9	I	0.15	I	15.9	I	0.15	I		I
I	C-AB	I	28.0	I	28.0	I	3.7	I	0.13	I	3.7	I	0.13	I		I
I	C-A	I	66.5	I	66.5	I		I		I		I		I		I
I	A-B	I	251.8	I	251.8	I		I		I		I		I		I
I	A-C	I	56.0	I	56.0	I		I		I		I		I		I
I	ALL	I	507.3	I	507.3	I	19.5	I	0.04	I	19.5	I	0.04	I		I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 09 - M1 Link-Gormanstown_2011_PM.vpi"
(drive-on-the-left) at 16:31:14 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 09 - New M1 Link-Gormanstown_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Gormanstown Rd Eastbound
ARM B IS New M1 Link Southbound
ARM C IS Gormanstown Rd Westbound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 120.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 120.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.75 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	752.00	0.29	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	621.50	0.28	0.11	0.18	0.41	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 09 - M1-Gormanstown_2011_

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	1.000	0.000			
		0.0	2.0	0.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.800	0.200	0.000			
		4.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 09 - M1-Gormanstown_2011_							
17.15 - 17.30							
	ARM A	0.000	1.000	0.000			
		0.0	2.0	0.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.833	0.167	0.000			
		5.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 09 - M1-Gormanstown_2011_							
17.30 - 17.45							
	ARM A	0.000	1.000	0.000			
		0.0	2.0	0.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.833	0.167	0.000			
		5.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 09 - M1-Gormanstown_2011_

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	1.000	0.000			
	0.0	2.0	0.0			
	(0.0)	(10.0)	(10.0)			
ARM B	1.000	0.000	0.000			
	4.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	0.800	0.200	0.000			
	4.0	1.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	3.83	8.14	0.471		0.00	0.86	12.0		0.23
C-AB	1.30	12.06	0.108		0.00	0.17	2.6		0.09
C-A	3.25								
A-B	2.27								
A-C	0.00								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	4.49	7.95	0.565		0.86	1.25	17.6		0.28
C-AB	1.38	12.49	0.110		0.17	0.19	2.9		0.09
C-A	3.96								
A-B	2.66								
A-C	0.00								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	4.49	7.95	0.565		1.25	1.27	18.9		0.29
C-AB	1.38	12.49	0.110		0.19	0.19	2.9		0.09
C-A	3.96								
A-B	2.66								
A-C	0.00								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	3.83	8.13	0.471		1.27	0.91	14.4		0.24	I
I	C-AB	1.30	12.06	0.108		0.19	0.18	2.7		0.09	I
I	C-A	3.25									I
I	A-B	2.27									I
I	A-C	0.00									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.9	*
17.30	1.2	*
17.45	1.3	*
18.00	0.9	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.2
17.30	0.2
17.45	0.2
18.00	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	B-AC	I	249.6	I	63.0	I	0.25	I
I	C-AB	I	80.4	I	11.1	I	0.14	I
I	C-A	I	216.3	I		I		I
I	A-B	I	147.9	I		I		I
I	A-C	I	0.0	I		I		I
I	ALL	I	694.2	I	74.0	I	0.11	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:31:24 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 10 - New M1 Link-Housing_2011_AM.vpi"
(drive-on-the-left) at 16:33:39 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 10 - New M1 Link - Housing_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS M1 Link Southbound
ARM B IS From Housing Development
ARM C IS M1 Link Northbound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 7.50 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 2.20 M.	I
I	- VISIBILITY	I	(VC-B) 120.0 M.	I
I	- BLOCKS TRAFFIC	I	NO	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 120.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 120.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	734.50	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	607.03	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	643.46	0.23	0.23	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 10 - M1 Link-Housing_2011

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	1.000			
		0.0	2.0	0.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		5.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 10 - M1 Link-Housing_2011

08.15 - 08.30							
	ARM A	0.000	0.000	1.000			
		0.0	2.0	0.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		5.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 10 - M1 Link-Housing_2011

08.30 - 08.45							
	ARM A	0.000	0.000	1.000			
		0.0	2.0	0.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		5.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 10 - M1 Link-Housing_2011

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.000	1.000			
	0.0	2.0	0.0			
	(0.0)	(10.0)	(10.0)			
ARM B	1.000	0.000	0.000			
	4.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	5.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	0.63	8.13	0.078		0.00	0.08	1.2		0.13
C-A	4.67								
C-B	0.00	9.48	0.000		0.00	0.00	0.0		0.00
A-B	0.00								
A-C	1.16								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	0.74	7.94	0.093		0.08	0.10	1.5		0.14
C-A	5.48								
C-B	0.00	9.43	0.000		0.00	0.00	0.0		0.00
A-B	0.00								
A-C	1.36								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	0.74	7.94	0.093		0.10	0.10	1.5		0.14
C-A	5.48								
C-B	0.00	9.43	0.000		0.00	0.00	0.0		0.00
A-B	0.00								
A-C	1.36								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	0.63	8.13	0.078		0.10	0.08	1.3		0.13	I
I	C-A	4.67									I
I	C-B	0.00	9.48	0.000		0.00	0.00	0.0		0.00	I
I	A-B	0.00									I
I	A-C	1.16									I

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	I	I	I	I	I	I	I
I	I	I	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	B-AC	I	41.1	I 41.1	I 5.5	I 0.13	I 5.5	I 0.13
I	C-A	I	304.5	I 304.5	I	I	I	I
I	C-B	I	0.0	I 0.0	I 0.0	I 0.00	I 0.0	I 0.00
I	A-B	I	0.0	I 0.0	I	I	I	I
I	A-C	I	75.6	I 75.6	I	I	I	I
I	ALL	I	421.2	I 421.2	I 5.5	I 0.01	I 5.5	I 0.01

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:33:49 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 10 - New M1 Link-Housing_2011_PM.vpi"
(drive-on-the-left) at 16:35:42 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 10 - New M1 Link - Housing_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS M1 Link Southbound
ARM B IS From Housing Development
ARM C IS M1 Link Northbound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 7.50 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 2.20 M.	I
I	- VISIBILITY	I	(VC-B) 120.0 M.	I
I	- BLOCKS TRAFFIC	I	NO	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 120.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 120.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	734.50	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	607.03	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	643.46	0.23	0.23	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 10 - M1 Link-Housing_2011

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.333	0.667			
		0.0	1.0	2.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 10 - M1 Link-Housing_2011

17.15 - 17.30							
	ARM A	0.000	0.250	0.750			
		0.0	1.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 10 - M1 Link-Housing_2011

17.30 - 17.45							
	ARM A	0.000	0.250	0.750			
		0.0	1.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 10 - M1 Link-Housing_2011

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.333	0.667			
	0.0	1.0	2.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	4.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	3.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.00	9.22	0.000		0.00	0.00	0.0		0.00
C-A	2.61								
C-B	0.00	9.11	0.000		0.00	0.00	0.0		0.00
A-B	0.92								
A-C	1.83								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	0.00	9.03	0.000		0.00	0.00	0.0		0.00
C-A	3.06								
C-B	0.00	9.00	0.000		0.00	0.00	0.0		0.00
A-B	0.81								
A-C	2.41								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	0.00	9.03	0.000		0.00	0.00	0.0		0.00
C-A	3.06								
C-B	0.00	9.00	0.000		0.00	0.00	0.0		0.00
A-B	0.81								
A-C	2.41								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.00	9.22	0.000		0.00	0.00	0.0		0.00	I
I	C-A	2.61									I
I	C-B	0.00	9.11	0.000		0.00	0.00	0.0		0.00	I
I	A-B	0.92									I
I	A-C	1.83									I

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE FOR STREAM C-B

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(VEH/H)	I	(MIN)	I
I		I		I		I	(MIN/VEH)	I
I	B-AC	I	0.0	I	0.0	I	0.00	I
I	C-A	I	170.1	I	170.1	I	I	I
I	C-B	I	0.0	I	0.0	I	0.00	I
I	A-B	I	51.7	I	51.7	I	I	I
I	A-C	I	127.4	I	127.4	I	I	I
I	ALL	I	349.2	I	349.2	I	0.0	I
							0.00	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:35:53 PM on 7/20/2007]

A R C A D Y 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 4.0 (FEBRUARY 2006)

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Wokingham, Berks.	Web: www.trlsoftware.co.uk
RG40 3GA, UK	

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IN NO WAY RELIEVED OF THEIR RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

Run with file:-

"s:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 11 - M1 Link Roundabout AM.vai"
(drive-on-the-left) at 10:14:27 on Monday, 23 July 2007

FILE PROPERTIES

RUN TITLE: Site 11 - M1 Link Roundabout AM Peak
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - M1 Link Eastbound
ARM B - Industrial and Hotel Lands
ARM C - M1 Link Westbound
ARM D - M1 Link Northbound

GEOMETRIC DATA

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I	ARM A	I	3.75	I	6.50	I	15.00	I	15.00	I	38.00	I	50.0	I	0.584	I	25.317
I	ARM B	I	3.75	I	6.50	I	15.00	I	15.00	I	38.00	I	50.0	I	0.584	I	25.317
I	ARM C	I	3.75	I	6.50	I	15.00	I	15.00	I	38.00	I	50.0	I	0.584	I	25.317
I	ARM D	I	3.75	I	6.50	I	15.00	I	15.00	I	38.00	I	50.0	I	0.584	I	25.317

V = approach half-width
E = entry width

L = effective flare length
R = entry radius

D = inscribed circle diameter
PHI = entry angle

TRAFFIC DEMAND DATA

(Only sets included in the current run are shown)

```

-----
I ARM I FLOW SCALE(%) I
-----
I A I 100 I
I B I 100 I
I C I 100 I
I D I 100 I
-----

```

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
 LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.
 DEMAND SET TITLE: M1 Link Roundabout AM Peak

DEMAND SET TITLE: M1 Link Roundabout AM Peak

		TURNING PROPORTIONS				
		TURNING COUNTS				
		(PERCENTAGE OF H.V.S)				
TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D	
08.00 - 08.15	ARM A	0.000	0.116	0.864	0.020	
		0.0	1.1	7.9	0.2	
		(10.0)	(10.0)	(10.0)	(10.0)	
	ARM B	0.101	0.000	0.799	0.101	
		0.2	0.0	1.4	0.2	
		(10.0)	(10.0)	(10.0)	(10.0)	
	ARM C	0.196	0.735	0.000	0.069	
		2.3	8.6	0.0	0.8	
		(10.0)	(10.0)	(10.0)	(10.0)	
	ARM D	0.008	0.205	0.787	0.000	
		0.0	1.1	4.1	0.0	
		(10.0)	(10.0)	(10.0)	(10.0)	
08.15 - 08.30	ARM A	0.000	0.117	0.864	0.019	
		0.0	1.3	9.3	0.2	
		(10.0)	(10.0)	(10.0)	(10.0)	
	ARM B	0.101	0.000	0.798	0.101	
		0.2	0.0	1.6	0.2	
		(10.0)	(10.0)	(10.0)	(10.0)	
	ARM C	0.195	0.735	0.000	0.069	
		2.7	10.1	0.0	0.9	
		(10.0)	(10.0)	(10.0)	(10.0)	
	ARM D	0.007	0.206	0.787	0.000	
		0.0	1.3	4.8	0.0	
		(10.0)	(10.0)	(10.0)	(10.0)	

DEMAND SET TITLE: M1 Link Roundabout AM Peak

TIME	TURNING PROPORTIONS TURNING COUNTS (PERCENTAGE OF H.V.S)							
	FROM/TO	ARM A	ARM B	ARM C	ARM D			
08.30 - 08.45	ARM A	0.000 0.0 (10.0)	0.117 1.3 (10.0)	0.864 9.3 (10.0)	0.019 0.2 (10.0)			
	ARM B	0.101 0.2 (10.0)	0.000 0.0 (10.0)	0.798 1.6 (10.0)	0.101 0.2 (10.0)			
	ARM C	0.195 2.7 (10.0)	0.735 10.1 (10.0)	0.000 0.0 (10.0)	0.069 0.9 (10.0)			
	ARM D	0.007 0.0 (10.0)	0.206 1.3 (10.0)	0.787 4.8 (10.0)	0.000 0.0 (10.0)			
08.45 - 09.00	ARM A	0.000 0.0 (10.0)	0.116 1.1 (10.0)	0.864 7.9 (10.0)	0.020 0.2 (10.0)			
	ARM B	0.101 0.2 (10.0)	0.000 0.0 (10.0)	0.799 1.4 (10.0)	0.101 0.2 (10.0)			
	ARM C	0.196 2.3 (10.0)	0.735 8.6 (10.0)	0.000 0.0 (10.0)	0.069 0.8 (10.0)			
	ARM D	0.008 0.0 (10.0)	0.205 1.1 (10.0)	0.787 4.1 (10.0)	0.000 0.0 (10.0)			

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
ARM A	9.21	15.02	0.613		0.0	1.5	21.5		0.17
ARM B	1.69	15.94	0.106		0.0	0.1	1.7		0.07
ARM C	11.70	22.71	0.515		0.0	1.0	15.1		0.09
ARM D	5.21	16.60	0.314		0.0	0.5	6.6		0.09
08.15-08.30									
ARM A	10.81	13.60	0.795		1.5	3.5	46.5		0.33
ARM B	1.98	14.71	0.135		0.1	0.2	2.3		0.08
ARM C	13.73	22.66	0.606		1.0	1.5	21.8		0.11
ARM D	6.11	15.46	0.395		0.5	0.6	9.4		0.11

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.30-08.45										I
I	ARM A	10.81	13.58	0.796		3.5	3.7	54.3		0.36	I
I	ARM B	1.98	14.64	0.135		0.2	0.2	2.3		0.08	I
I	ARM C	13.73	22.66	0.606		1.5	1.5	22.8		0.11	I
I	ARM D	6.11	15.44	0.396		0.6	0.7	9.7		0.11	I
I											I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.45-09.00										I
I	ARM A	9.21	14.96	0.616		3.7	1.6	26.7		0.18	I
I	ARM B	1.69	15.80	0.107		0.2	0.1	1.8		0.07	I
I	ARM C	11.70	22.71	0.515		1.5	1.1	16.6		0.09	I
I	ARM D	5.21	16.54	0.315		0.7	0.5	7.1		0.09	I
I											I

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	1.5	**
08.30	3.5	****
08.45	3.7	****
09.00	1.6	**

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.1	
08.30	0.2	
08.45	0.2	
09.00	0.1	

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	1.0	*
08.30	1.5	**
08.45	1.5	**
09.00	1.1	*

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.5	
08.30	0.6	*
08.45	0.7	*
09.00	0.5	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	ARM	I	TOTAL DEMAND		I	* QUEUEING *		I	* INCLUSIVE QUEUEING *		I
I		I			I	* DELAY *		I	* DELAY *		I
I		I			I			I			I
I		I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)	I
I	A	I	600.6	I 600.6	I	149.0	I 0.25	I	149.1	I 0.25	I
I	B	I	110.1	I 110.1	I	8.2	I 0.07	I	8.2	I 0.07	I
I	C	I	762.9	I 762.9	I	76.3	I 0.10	I	76.4	I 0.10	I
I	D	I	339.6	I 339.6	I	32.9	I 0.10	I	32.9	I 0.10	I
I	ALL	I	1813.2	I 1813.2	I	266.4	I 0.15	I	266.5	I 0.15	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 10:14:43 AM on 7/23/2007]

A R C A D Y 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 4.0 (FEBRUARY 2006)

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Run with file:-

"s:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 11 - M1 Link Roundabout PM.vai"
(drive-on-the-left) at 15:41:49 on Friday, 20 July 2007

FILE PROPERTIES

RUN TITLE: Site 11 - M1 Link Roundabout PM Peak
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - M1 Link Eastbound
ARM B - Industrial and Hotel Lands
ARM C - M1 Link Westbound
ARM D - M1 Link Northbound

GEOMETRIC DATA

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I	ARM A	I	3.75	I	6.50	I	15.00	I	15.00	I	38.00	I	50.0	I	0.584	I	25.317
I	ARM B	I	3.75	I	6.50	I	15.00	I	15.00	I	38.00	I	50.0	I	0.584	I	25.317
I	ARM C	I	3.75	I	6.50	I	15.00	I	15.00	I	38.00	I	50.0	I	0.584	I	25.317
I	ARM D	I	3.75	I	6.50	I	15.00	I	15.00	I	38.00	I	50.0	I	0.584	I	25.317

V = approach half-width
E = entry width

L = effective flare length
R = entry radius

D = inscribed circle diameter
PHI = entry angle

TRAFFIC DEMAND DATA

(Only sets included in the current run are shown)

ARM	FLOW	SCALE(%)
A	100	
B	100	
C	100	
D	100	

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.
DEMAND SET TITLE: M1 Link Roundabout AM Peak

DEMAND SET TITLE: M1 Link Roundabout AM Peak

		TURNING PROPORTIONS			
		TURNING COUNTS			
		(PERCENTAGE OF H.V.S)			
TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
17.00 - 17.15	ARM A	0.000	0.039	0.938	0.024
		0.0	0.2	4.4	0.1
		(10.0)	(10.0)	(10.0)	(10.0)
	ARM B	0.099	0.000	0.801	0.099
		0.7	0.0	5.9	0.7
		(10.0)	(10.0)	(10.0)	(10.0)
	ARM C	0.627	0.162	0.000	0.212
		5.6	1.5	0.0	1.9
		(10.0)	(10.0)	(10.0)	(10.0)
	ARM D	0.031	0.062	0.907	0.000
		0.1	0.2	2.6	0.0
		(10.0)	(10.0)	(10.0)	(10.0)
17.15 - 17.30	ARM A	0.000	0.038	0.938	0.024
		0.0	0.2	5.1	0.1
		(10.0)	(10.0)	(10.0)	(10.0)
	ARM B	0.100	0.000	0.800	0.100
		0.9	0.0	6.9	0.9
		(10.0)	(10.0)	(10.0)	(10.0)
	ARM C	0.626	0.162	0.000	0.212
		6.6	1.7	0.0	2.2
		(10.0)	(10.0)	(10.0)	(10.0)
	ARM D	0.032	0.062	0.906	0.000
		0.1	0.2	3.1	0.0
		(10.0)	(10.0)	(10.0)	(10.0)

DEMAND SET TITLE: M1 Link Roundabout AM Peak

		TURNING PROPORTIONS							
		TURNING COUNTS							
		(PERCENTAGE OF H.V.S)							
TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D				
17.30 - 17.45	ARM A	0.000	0.038	0.938	0.024				
		0.0	0.2	5.1	0.1				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM B	0.100	0.000	0.800	0.100				
		0.9	0.0	6.9	0.9				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM C	0.626	0.162	0.000	0.212				
		6.6	1.7	0.0	2.2				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM D	0.032	0.062	0.906	0.000				
		0.1	0.2	3.1	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)				
17.45 - 18.00	ARM A	0.000	0.039	0.938	0.024				
		0.0	0.2	4.4	0.1				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM B	0.099	0.000	0.801	0.099				
		0.7	0.0	5.9	0.7				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM C	0.627	0.162	0.000	0.212				
		5.6	1.5	0.0	1.9				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM D	0.031	0.062	0.907	0.000				
		0.1	0.2	2.6	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)				

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
ARM A	4.68	20.54	0.228		0.0	0.3	4.3		0.06
ARM B	7.34	18.87	0.389		0.0	0.6	9.1		0.09
ARM C	8.96	22.10	0.405		0.0	0.7	9.8		0.08
ARM D	2.90	18.49	0.157		0.0	0.2	2.7		0.06
17.15-17.30									
ARM A	5.49	20.10	0.273		0.3	0.4	5.5		0.07
ARM B	8.62	18.14	0.475		0.6	0.9	13.0		0.10
ARM C	10.52	21.94	0.480		0.7	0.9	13.3		0.09
ARM D	3.41	17.68	0.193		0.2	0.2	3.5		0.07

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.30-17.45										I
I	ARM A	5.49	20.10	0.273		0.4	0.4	5.6		0.07	I
I	ARM B	8.62	18.13	0.475		0.9	0.9	13.5		0.11	I
I	ARM C	10.52	21.94	0.480		0.9	0.9	13.7		0.09	I
I	ARM D	3.41	17.67	0.193		0.2	0.2	3.6		0.07	I
I											I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	ARM A	4.68	20.53	0.228		0.4	0.3	4.5		0.06	I
I	ARM B	7.34	18.85	0.389		0.9	0.6	9.9		0.09	I
I	ARM C	8.96	22.10	0.405		0.9	0.7	10.6		0.08	I
I	ARM D	2.90	18.46	0.157		0.2	0.2	2.9		0.06	I
I											I

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.3
17.30	0.4
17.45	0.4
18.00	0.3

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.6 *
17.30	0.9 *
17.45	0.9 *
18.00	0.6 *

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.7 *
17.30	0.9 *
17.45	0.9 *
18.00	0.7 *

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.2
17.30	0.2
17.45	0.2
18.00	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	ARM	I	TOTAL DEMAND		I	* QUEUEING *		I	* INCLUSIVE QUEUEING *		I
I		I			I	* DELAY *		I	* DELAY *		I
I		I			I			I			I
I		I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)	I
I	A	I	305.1	I 305.1	I	20.0	I 0.07	I	20.0	I 0.07	I
I	B	I	478.8	I 478.8	I	45.5	I 0.10	I	45.6	I 0.10	I
I	C	I	584.4	I 584.4	I	47.4	I 0.08	I	47.4	I 0.08	I
I	D	I	189.3	I 189.3	I	12.6	I 0.07	I	12.6	I 0.07	I
I	ALL	I	1557.6	I 1557.6	I	125.6	I 0.08	I	125.6	I 0.08	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.

* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.

* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 3:42:05 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\
Site 12 - Gormanstown-DevlinBridge_2011_AM.vpi"
(drive-on-the-left) at 16:37:40 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 12 - Gormanstown-DevlinBridge_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Gormanstown Rd W'bound
ARM B IS Delvin Bridge Rd
ARM C IS Navan Rd E'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Gormanstown-DevlinBridge_2011_

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.250	0.750			
		0.0	1.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		4.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		6.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-DevlinBridge_2011_							
08.15 - 08.30							
	ARM A	0.000	0.250	0.750			
		0.0	1.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		8.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-DevlinBridge_2011_							
08.30 - 08.45							
	ARM A	0.000	0.250	0.750			
		0.0	1.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		8.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-DevlinBridge_2011_

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.250	0.750			
	0.0	1.0	3.0			
	(0.0)	(10.0)	(10.0)			
ARM B	1.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	6.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.51	6.86	0.220		0.00	0.28	4.0		0.19
C-AB	0.00	9.46	0.000		0.00	0.00	0.0		0.00
C-A	6.50								
A-B	0.81								
A-C	2.45								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	1.77	6.54	0.271		0.28	0.36	5.3		0.21
C-AB	0.00	9.31	0.000		0.00	0.00	0.0		0.00
C-A	7.63								
A-B	0.96								
A-C	2.87								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	1.77	6.54	0.271		0.36	0.37	5.5		0.21
C-AB	0.00	9.31	0.000		0.00	0.00	0.0		0.00
C-A	7.63								
A-B	0.96								
A-C	2.87								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	1.51	6.86	0.220		0.37	0.29	4.4		0.19	I
I	C-AB	0.00	9.46	0.000		0.00	0.00	0.0		0.00	I
I	C-A	6.50									I
I	A-B	0.81									I
I	A-C	2.45									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.3
08.30	0.4
08.45	0.4
09.00	0.3

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	98.4	I	19.2	I	19.2	I
I	C-AB	I	0.0	I	0.0	I	0.0	I
I	C-A	I	423.9	I		I		I
I	A-B	I	53.2	I		I		I
I	A-C	I	159.5	I		I		I
I	ALL	I	735.0	I	19.2	I	19.2	I
					0.03		0.03	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .

* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.

* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:37:49 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\
Site 12 - Gormanstown-DevlinBridge_2011_PM.vpi"
(drive-on-the-left) at 16:40:23 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 12 - Gormanstown-DevlinBridge_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Gormanstown Rd W'bound
ARM B IS Delvin Bridge Rd
ARM C IS Navan Rd E'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Gormanstown-DevlinBridge_2011_

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.143	0.857			
		0.0	1.0	6.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-DevlinBridge_2011_							
17.15 - 17.30							
	ARM A	0.000	0.222	0.778			
		0.0	2.0	7.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-DevlinBridge_2011_							
17.30 - 17.45							
	ARM A	0.000	0.222	0.778			
		0.0	2.0	7.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Gormanstown-DevlinBridge_2011_

TIME	TURNING PROPORTIONS					
	TURNING COUNTS (PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.111	0.889			
	0.0	1.0	8.0			
	(0.0)	(10.0)	(10.0)			
ARM B	1.000	0.000	0.000			
	2.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	3.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.96	6.39	0.150		0.00	0.17	2.5		0.18
C-AB	0.00	8.39	0.000		0.00	0.00	0.0		0.00
C-A	3.09								
A-B	1.05								
A-C	6.28								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.12	6.11	0.183		0.17	0.22	3.2		0.20
C-AB	0.00	8.06	0.000		0.00	0.00	0.0		0.00
C-A	3.62								
A-B	1.91								
A-C	6.69								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.12	6.11	0.183		0.22	0.22	3.3		0.20
C-AB	0.00	8.06	0.000		0.00	0.00	0.0		0.00
C-A	3.62								
A-B	1.91								
A-C	6.69								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.96	6.35	0.151		0.22	0.18	2.8		0.19	I
I	C-AB	0.00	8.39	0.000		0.00	0.00	0.0		0.00	I
I	C-A	3.09									I
I	A-B	0.81									I
I	A-C	6.52									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
17.15	0.2
17.30	0.2
17.45	0.2
18.00	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	62.4	I	11.8	I	11.8	I
I	C-AB	I	0.0	I	0.0	I	0.0	I
I	C-A	I	201.3	I		I		I
I	A-B	I	85.3	I		I		I
I	A-C	I	392.6	I		I		I
I	ALL	I	741.6	I	11.8	I	11.8	I
					0.02		0.02	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:40:33 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 13 - Kilbrekhan-McGreevy_2011_AM.vpi"
(drive-on-the-left) at 14:18:05 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 13 - Kilbrekhan-McGreevy_2011_AM
LOCATION:
DATE: 20/07/07
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Kilbrekhan Rd S'bound
ARM B IS McGreevy Lands Access
ARM C IS Kilbrekhan Rd N'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For Slope For Opposing Stream B-C	I	Slope For Opposing Stream A-C	I
I	708.05	I	0.27	I
I		I	0.11	I

I	Intercept For Slope For Opposing Stream B-A	I	Slope For Opposing Stream A-C	I	Slope For Opposing Stream C-A	I	Slope For Opposing Stream C-B	I
I	570.88	I	0.26	I	0.10	I	0.16	I
I		I		I		I	0.37	I

I	Intercept For Slope For Opposing Stream C-B	I	Slope For Opposing Stream A-C	I	Slope For Opposing Stream A-B	I
I	681.05	I	0.26	I	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 13 - Kilbrekhan-McGreevy_

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 13 - Kilbrekhan-McGreevy_							
08.15 - 08.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 13 - Kilbrekhan-McGreevy_							
08.30 - 08.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	3.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		2.0	0.0	0.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		3.0	0.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 13 - Kilbrekhan-McGreevy_

TIME	TURNING PROPORTIONS					
	TURNING COUNTS (PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	3.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	1.000			
	2.0	0.0	0.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	3.0	0.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.01	9.92	0.102		0.00	0.11	1.6		0.11
C-AB	0.00	9.54	0.000		0.00	0.00	0.0		0.00
C-A	0.90								
A-B	0.00								
A-C	2.95								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	1.18	9.78	0.121		0.11	0.14	2.0		0.12
C-AB	0.00	9.41	0.000		0.00	0.00	0.0		0.00
C-A	1.06								
A-B	0.00								
A-C	3.46								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	1.18	9.78	0.121		0.14	0.14	2.0		0.12
C-AB	0.00	9.41	0.000		0.00	0.00	0.0		0.00
C-A	1.06								
A-B	0.00								
A-C	3.46								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	1.01	9.92	0.102		0.14	0.11	1.7		0.11	I
I	C-AB	0.00	9.54	0.000		0.00	0.00	0.0		0.00	I
I	C-A	0.90									I
I	A-B	0.00									I
I	A-C	2.95									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	65.7	I	7.4	I	7.4	I
I	C-AB	I	0.0	I	0.0	I	0.0	I
I	C-A	I	58.8	I		I		I
I	A-B	I	0.0	I		I		I
I	A-C	I	192.3	I		I		I
I	ALL	I	316.8	I	7.4	I	7.4	I
					0.02		0.02	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 2:18:16 PM on 7/20/2007]

TRL TRL VIEWER 3.1 AD S:\1_OCSC_CURRENT_DRAWINGS\S__JOBS\Job-S237\Documents\AOP\Kilbrekhan-McGreevy_2009_PM.vpi

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S__JOBS\Job-S237\Documents\AOP\Kilbrekhan-McGreevy_2009_PM.vpi"
(drive-on-the-left) at 14:21:20 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 13 - Kilbrekhan-McGreevy_2011_PM
LOCATION:
DATE: 20/07/07
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Kilbrekhan Rd S'bound
ARM B IS McGreevy Lands Access
ARM C IS Kilbrekhan Rd N'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 13 - Kilbrekhan-McGreevy_

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

[illegible]

Site 13 - Kilbrekhan-McGreevy_

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.64	10.51	0.061		0.08	0.07	1.0		0.10	I
I	C-AB	1.26	11.41	0.111		0.19	0.16	2.3		0.10	I
I	C-A	1.85									I
I	A-B	0.00									I
I	A-C	0.80									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.1
17.30	0.1
17.45	0.1
18.00	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.2
17.30	0.2
17.45	0.2
18.00	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND (VEH)	I	41.7	I	41.7	I	4.2	I	0.10	I	4.2	I	0.10	I
I		I		I		I		I		I		I		I		I
I		I		I		I		I		I		I		I		I
I		I		I		I		I		I		I		I		I
I	B-AC	I	41.7	I	41.7	I	4.2	I	0.10	I	4.2	I	0.10	I		I
I	C-AB	I	84.0	I	84.0	I	10.4	I	0.12	I	10.4	I	0.12	I		I
I	C-A	I	118.8	I	118.8	I		I		I		I		I		I
I	A-B	I	0.0	I	0.0	I		I		I		I		I		I
I	A-C	I	52.2	I	52.2	I		I		I		I		I		I
I	ALL	I	296.7	I	296.7	I	14.6	I	0.05	I	14.6	I	0.05	I		I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\
Site 14 - New M1 Link - Harnans Land_2011_AM.vpi"
(drive-on-the-left) at 16:42:42 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 14 - New M1 Link - Harnans Land_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)

I
I
I
I
I
I
I

MINOR ROAD (ARM B)

ARM A IS M1 Link Eastbound
ARM B IS From Harnans Land Southbound
ARM C IS M1 Link Westbound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 7.50 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 2.20 M.	I
I	- VISIBILITY	I	(VC-B) 120.0 M.	I
I	- BLOCKS TRAFFIC	I	NO	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 120.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 120.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	734.50	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	607.03	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	643.46	0.23	0.23	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 14 - M1 Link-Harnan_2011_

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	7.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.667	0.333	0.000			
		2.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 14 - M1 Link-Harnan_2011_							
08.15 - 08.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	9.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.667	0.333	0.000			
		2.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 14 - M1 Link-Harnan_2011_							
08.30 - 08.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	9.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.667	0.333	0.000			
		2.0	1.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 14 - M1 Link-Harnan_2011_

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C		
08.45 - 09.00						
	ARM A	0.000	0.000	1.000		
		0.0	0.0	7.0		
		(0.0)	(10.0)	(10.0)		
	ARM B	0.000	0.000	1.000		
		0.0	0.0	2.0		
		(10.0)	(0.0)	(10.0)		
	ARM C	0.667	0.333	0.000		
		2.0	1.0	0.0		
		(10.0)	(10.0)	(0.0)		

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.01	10.34	0.098		0.00	0.11	1.6		0.11
C-A	0.60								
C-B	0.30	9.06	0.033		0.00	0.03	0.5		0.11
A-B	0.00								
A-C	2.95								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	2.28	8.80	0.259		0.11	0.35	5.0		0.15
C-A	1.95								
C-B	0.97	7.71	0.126		0.03	0.14	2.1		0.15
A-B	0.00								
A-C	8.76								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	2.28	8.80	0.259		0.35	0.35	5.2		0.15
C-A	1.95								
C-B	0.97	7.71	0.126		0.14	0.14	2.2		0.15
A-B	0.00								
A-C	8.76								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	1.01	10.34	0.098		0.35	0.11	1.7		0.11	I
I	C-A	0.60									I
I	C-B	0.30	9.06	0.033		0.14	0.03	0.5		0.11	I
I	A-B	0.00									I
I	A-C	2.95									I

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.3
08.45	0.3
09.00	0.1

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.1
08.45	0.1
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND		I	* QUEUEING *		I	* INCLUSIVE QUEUEING *		I
I		I			I	* DELAY *		I	* DELAY *		I
I		I			I			I			I
I		I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)	I
I	B-AC	I	98.7	I 98.7	I	13.4	I 0.14	I	13.4	I 0.14	I
I	C-A	I	76.4	I 76.4	I		I	I		I	I
I	C-B	I	38.2	I 38.2	I	5.2	I 0.14	I	5.2	I 0.14	I
I	A-B	I	0.0	I 0.0	I		I	I		I	I
I	A-C	I	351.3	I 351.3	I		I	I		I	I
I	ALL	I	564.6	I 564.6	I	18.7	I 0.03	I	18.7	I 0.03	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:42:51 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\
Site 14 - New M1 Link - Harnans Land_2011_PM.vpi"
(drive-on-the-left) at 16:44:26 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site 14 - New M1 Link - Harnans Land_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)

I
I
I
I
I
I
I

MINOR ROAD (ARM B)

ARM A IS M1 Link Eastbound
ARM B IS From Harnans Land Southbound
ARM C IS M1 Link Westbound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 7.50 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 2.20 M.	I
I	- VISIBILITY	I	(VC-B) 120.0 M.	I
I	- BLOCKS TRAFFIC	I	NO	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 120.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 120.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	734.50	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	607.03	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	643.46	0.23	0.23	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 14 - M1 Link-Harnan_2011_

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.714	0.286	0.000			
		5.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 14 - M1 Link-Harnan_2011_							
17.15 - 17.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.714	0.286	0.000			
		5.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 14 - M1 Link-Harnan_2011_							
17.30 - 17.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.714	0.286	0.000			
		5.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 14 - M1 Link-Harnan_2011_

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
	FROM/TO	ARM A	ARM B	ARM C		
17.45 - 18.00	ARM A	0.000	0.000	1.000		
		0.0	0.0	4.0		
		(0.0)	(10.0)	(10.0)		
	ARM B	0.000	0.000	1.000		
		0.0	0.0	2.0		
		(10.0)	(0.0)	(10.0)		
	ARM C	0.714	0.286	0.000		
		5.0	2.0	0.0		
		(10.0)	(10.0)	(0.0)		

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	1.23	10.15	0.121		0.00	0.14	2.0		0.11
C-A	4.60								
C-B	1.84	8.89	0.207		0.00	0.26	3.7		0.14
A-B	0.00								
A-C	3.69								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.44	9.98	0.144		0.14	0.17	2.5		0.12
C-A	5.41								
C-B	2.16	8.74	0.247		0.26	0.32	4.7		0.15
A-B	0.00								
A-C	4.33								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.44	9.98	0.144		0.17	0.17	2.5		0.12
C-A	5.41								
C-B	2.16	8.74	0.247		0.32	0.33	4.9		0.15
A-B	0.00								
A-C	4.33								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	1.23	10.15	0.121		0.17	0.14	2.1		0.11	I
I	C-A	4.60									I
I	C-B	1.84	8.89	0.207		0.33	0.26	4.1		0.14	I
I	A-B	0.00									I
I	A-C	3.69									I

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.1
17.30	0.2
17.45	0.2
18.00	0.1

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.3
17.30	0.3
17.45	0.3
18.00	0.3

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND		I	* QUEUEING *	I	* INCLUSIVE QUEUEING *		I
I		I			I	* DELAY *	I	* DELAY *	I	
I		I			I		I			I
I		I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)
I	B-AC	I	80.1	I 80.1	I	9.1	I 0.11	I	9.1	I 0.11
I	C-A	I	300.2	I 300.2	I		I	I		I
I	C-B	I	120.1	I 120.1	I	17.4	I 0.14	I	17.4	I 0.14
I	A-B	I	0.0	I 0.0	I		I	I		I
I	A-C	I	240.6	I 240.6	I		I	I		I
I	ALL	I	741.0	I 741.0	I	26.5	I 0.04	I	26.5	I 0.04

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 4:44:35 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 15 - Cockhill-Harnan_2011_AM.vpi"
(drive-on-the-left) at 14:56:30 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site #15 - Cockhill-Harnan_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Cockhill Rd S'bound
ARM B IS From Harnans
ARM C IS Cockhill Rd N'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 15 - Cockhill-Harnan_2011

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		6.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 15 - Cockhill-Harnan_2011

08.15 - 08.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		6.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 15 - Cockhill-Harnan_2011

08.30 - 08.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		6.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 15 - Cockhill-Harnan_2011

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	4.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	0.0	0.0	2.0			
	(10.0)	(0.0)	(10.0)			
ARM C	1.000	0.000	0.000			
	6.0	2.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	0.00	9.32	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	10.13	0.000		0.00	0.00	0.0		0.00
C-A	0.60								
A-B	0.00								
A-C	0.73								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	0.00	9.27	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	10.09	0.000		0.00	0.00	0.0		0.00
C-A	0.71								
A-B	0.00								
A-C	0.86								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	0.00	9.27	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	10.09	0.000		0.00	0.00	0.0		0.00
C-A	0.71								
A-B	0.00								
A-C	0.86								

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	0.00	9.32	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	10.13	0.000		0.00	0.00	0.0		0.00	I
I	C-A	0.60									I
I	A-B	0.00									I
I	A-C	0.73									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	B-AC	I	0.0	0.0	0.0	0.00	0.0	0.00
I	C-AB	I	0.0	0.0	0.0	0.00	0.0	0.00
I	C-A	I	39.3	39.3				
I	A-B	I	0.0	0.0				
I	A-C	I	47.7	47.7				
I	ALL	I	87.0	87.0	0.0	0.00	0.0	0.00

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .

* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.

* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 2:56:40 PM on 7/20/2007]

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"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 15 - Cockhill-Harnan_2011_PM.vpi"
(drive-on-the-left) at 14:55:45 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site #15 - Cockhill-Harnan_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)

I
I
I
I
I
I
I

MINOR ROAD (ARM B)

ARM A IS Cockhill Rd S'bound
ARM B IS From Harnans
ARM C IS Cockhill Rd N'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.10 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 80.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 80.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.50 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	708.05	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	570.88	0.26	0.10	0.16	0.37	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.26	0.26	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 15 - Cockhill-Harnan_2011

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.000	0.000	0.000			
		6.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 15 - Cockhill-Harnan_2011

17.15 - 17.30							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		6.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 15 - Cockhill-Harnan_2011

17.30 - 17.45							
	ARM A	0.000	0.000	1.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	0.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	1.000	0.000	0.000			
		6.0	2.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 15 - Cockhill-Harnan_2011

TIME	TURNING PROPORTIONS					
	TURNING COUNTS					
	(PERCENTAGE OF H.V.S)					
FROM/TO	ARM A	ARM B	ARM C			
17.45 - 18.00						
ARM A	0.000	0.000	1.000			
	0.0	0.0	4.0			
	(0.0)	(10.0)	(10.0)			
ARM B	0.000	0.000	0.000			
	0.0	0.0	2.0			
	(10.0)	(0.0)	(10.0)			
ARM C	0.000	0.000	0.000			
	6.0	2.0	0.0			
	(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.00	9.38	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	10.12	0.000		0.00	0.00	0.0		0.00
C-A	0.00								
A-B	0.00								
A-C	0.74								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	0.00	9.28	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	10.09	0.000		0.00	0.00	0.0		0.00
C-A	0.58								
A-B	0.00								
A-C	0.87								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	0.00	9.28	0.000		0.00	0.00	0.0		0.00
C-AB	0.00	10.09	0.000		0.00	0.00	0.0		0.00
C-A	0.58								
A-B	0.00								
A-C	0.87								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.00	9.38	0.000		0.00	0.00	0.0		0.00	I
I	C-AB	0.00	10.12	0.000		0.00	0.00	0.0		0.00	I
I	C-A	0.00									I
I	A-B	0.00									I
I	A-C	0.74									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND (VEH)	I	DEMAND (VEH/H)	I	* QUEUEING * * DELAY *	I	* INCLUSIVE QUEUEING * * DELAY *	I
I		I		I		I	(MIN)	I	(MIN)	I
I		I		I		I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-AB	I	0.0	I	0.0	I	0.0	I	0.0	I
I	C-A	I	17.4	I	17.4	I		I		I
I	A-B	I	0.0	I	0.0	I		I		I
I	A-C	I	48.3	I	48.3	I		I		I
I	ALL	I	65.7	I	65.7	I	0.0	I	0.0	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
RELEASE 2.0 (FEB 2006)

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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 16 - Cockhill-M1 Link_2011_AM.vpi"
(drive-on-the-left) at 17:02:32 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site #16 - Cockhill-M1 Link_2011_AM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Cockhill Rd S'bound
ARM B IS From M1 Link
ARM C IS Cockhill Rd N'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 7.50 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	NO	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 120.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 120.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.75 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	752.00	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	621.50	0.27	0.11	0.17	0.38	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.25	0.25	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 16 - Cockhill-M1 Link_201

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.00 - 08.15							
	ARM A	0.000	0.000	0.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.125	0.875	0.000			
		1.0	7.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 16 - Cockhill-M1 Link_201

08.15 - 08.30							
	ARM A	0.000	1.000	0.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.111	0.889	0.000			
		1.0	8.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 16 - Cockhill-M1 Link_201

08.30 - 08.45							
	ARM A	0.000	1.000	0.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.111	0.889	0.000			
		1.0	8.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 16 - Cockhill-M1 Link_201

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
08.45 - 09.00							
	ARM A	0.000	0.000	0.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	2.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.125	0.875	0.000			
		1.0	7.0	0.0			
		(10.0)	(10.0)	(0.0)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.93	11.39	0.169		0.00	0.20	2.9		0.11
C-A	0.95								
C-B	6.67	10.32	0.646		0.00	1.74	23.5		0.26
A-B	0.00								
A-C	0.00								
EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:									
MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)				
B-AC	0.106	0.009	0.015	0.005	0.007				
C-B	0.112	0.000		0.011					

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	2.27	11.31	0.201		0.20	0.25	3.7		0.11
C-A	0.99								
C-B	7.96	10.12	0.786		1.74	3.28	43.5		0.42
A-B	0.81								
A-C	0.00								
EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:									
MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)				
B-AC	0.096	0.011	0.015	0.004	0.006				
C-B	0.110	0.001		0.010					

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	2.27	11.31	0.201		0.25	0.25	3.7		0.11
C-A	0.99								
C-B	7.96	10.12	0.786		3.28	3.45	50.7		0.45
A-B	0.81								
A-C	0.00								
EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:									
MARGINAL	LANE WIDTH	MAJOR RD.	CENT RES	VIS TO LEFT	VISIBILITY				
CHANGE:	(.1M)	WIDTH	WIDTH	(AHEAD FOR MAJOR)	TO RIGHT				
		(.1M)	(.1M)	(M)	(M)				
B-AC	0.095	0.011	0.015	0.004	0.006				
C-B	0.110	0.001		0.010					

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	1.93	11.39	0.169		0.25	0.21	3.1		0.11
C-A	0.95								
C-B	6.67	10.32	0.646		3.45	1.91	31.2		0.29
A-B	0.00								
A-C	0.00								
EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:									
MARGINAL	LANE WIDTH	MAJOR RD.	CENT RES	VIS TO LEFT	VISIBILITY				
CHANGE:	(.1M)	WIDTH	WIDTH	(AHEAD FOR MAJOR)	TO RIGHT				
		(.1M)	(.1M)	(M)	(M)				
B-AC	0.104	0.009	0.015	0.004	0.007				
C-B	0.112	0.000		0.011					

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.2
08.30	0.2
08.45	0.3
09.00	0.2

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	1.7	**
08.30	3.3	***
08.45	3.4	***
09.00	1.9	**

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING *	* INCLUSIVE QUEUEING *
		* DELAY *	* DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-AC	126.0	126.0	13.5
C-A	58.4	58.4	0.11
C-B	438.7	438.7	148.9
A-B	24.3	24.3	0.34
A-C	0.0	0.0	149.0
ALL	647.4	647.4	162.3
			0.25
			162.5
			0.25

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 5:02:39 PM on 7/20/2007]

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.0 ANALYSIS PROGRAM
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Run with file:-

"S:\1_OCSC_CURRENT_DRAWINGS\S_JOBS\Job-S237\Documents\AOP_16-07-07\Site 16 - Cockhill-M1 Link_2011_PM.vpi"
(drive-on-the-left) at 17:03:56 on Friday, 20 July 2007

RUN INFORMATION

RUN TITLE: Site #16 - Cockhill-M1 Link_2011_PM
LOCATION:
DATE: 07/07/20
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Cockhill Rd S'bound
ARM B IS From M1 Link
ARM C IS Cockhill Rd N'bound

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 7.50 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.10 M.	I
I	- VISIBILITY	I	(VC-B) 80.0 M.	I
I	- BLOCKS TRAFFIC	I	NO	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 120.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 120.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 3.75 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	752.00	0.27	0.11	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B	I
I	621.50	0.27	0.11	0.17	0.38	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-B	I
I	681.05	0.25	0.25	I

NB These values do not allow for any site specific corrections

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Site 16 - Cockhill-M1 Link_201

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C			
17.00 - 17.15							
	ARM A	0.000	0.000	0.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	5.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.000	1.000	0.000			
		0.0	3.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 16 - Cockhill-M1 Link_201

17.15 - 17.30							
	ARM A	0.000	0.000	0.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	5.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.200	0.800	0.000			
		1.0	4.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 16 - Cockhill-M1 Link_201

17.30 - 17.45							
	ARM A	0.000	0.000	0.000			
		0.0	0.0	4.0			
		(0.0)	(10.0)	(10.0)			
	ARM B	0.000	0.000	1.000			
		0.0	0.0	5.0			
		(10.0)	(0.0)	(10.0)			
	ARM C	0.200	0.800	0.000			
		1.0	4.0	0.0			
		(10.0)	(10.0)	(0.0)			

Site 16 - Cockhill-M1 Link_201

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME		FROM/TO	ARM A	ARM B	ARM C		
17.45 - 18.00	ARM A		0.000	0.000	0.000		
			0.0	0.0	4.0		
			(0.0)	(10.0)	(10.0)		
	ARM B		0.000	0.000	1.000		
			0.0	0.0	5.0		
			(10.0)	(0.0)	(10.0)		
	ARM C		0.000	1.000	0.000		
			0.0	3.0	0.0		
			(10.0)	(10.0)	(0.0)		

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	4.65	11.39	0.408		0.00	0.68	9.7		0.15
C-A	0.00								
C-B	3.77	10.32	0.365		0.00	0.57	8.1		0.15
A-B	0.00								
A-C	0.00								
EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:									
MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)				
B-AC	0.125	0.005	0.015	0.005	0.008				
C-B	0.112	0.000		0.011					

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	5.46	11.39	0.479		0.68	0.90	13.0		0.17
C-A	0.88								
C-B	3.54	10.32	0.343		0.57	0.53	8.0		0.15
A-B	0.00								
A-C	0.00								
EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:									
MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)				
B-AC	0.124	0.005	0.015	0.005	0.008				
C-B	0.112	0.000		0.011					

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	5.46	11.39	0.479		0.90	0.91	13.6		0.17
C-A	0.88								
C-B	3.54	10.32	0.343		0.53	0.52	7.9		0.15
A-B	0.00								
A-C	0.00								
EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:									
MARGINAL	LANE WIDTH	MAJOR RD.	CENT RES	VIS TO LEFT	VISIBILITY				
CHANGE:	(.1M)	WIDTH	WIDTH	(AHEAD FOR MAJOR)	TO RIGHT				
		(.1M)	(.1M)	(M)	(M)				
B-AC	0.124	0.005	0.015	0.005	0.008				
C-B	0.112	0.000		0.011					

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	4.65	11.39	0.408		0.91	0.70	10.9		0.15
C-A	0.00								
C-B	3.77	10.32	0.365		0.52	0.57	8.4		0.15
A-B	0.00								
A-C	0.00								
EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:									
MARGINAL	LANE WIDTH	MAJOR RD.	CENT RES	VIS TO LEFT	VISIBILITY				
CHANGE:	(.1M)	WIDTH	WIDTH	(AHEAD FOR MAJOR)	TO RIGHT				
		(.1M)	(.1M)	(M)	(M)				
B-AC	0.125	0.005	0.015	0.005	0.008				
C-B	0.112	0.000		0.011					

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.7	*
17.30	0.9	*
17.45	0.9	*
18.00	0.7	*

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.6	*
17.30	0.5	*
17.45	0.5	*
18.00	0.6	*

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL	DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I	
I	I	I	I	I	I	* DELAY *	I	* DELAY *	I	
I	I	I	I	I	I	I	I	I	I	
I	I	I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)
I	B-AC	I	303.3	I 303.3	I	47.2	I 0.16	I	47.2	I 0.16
I	C-A	I	26.5	I 26.5	I	I	I	I	I	I
I	C-B	I	219.2	I 219.2	I	32.4	I 0.15	I	32.4	I 0.15
I	A-B	I	0.0	I 0.0	I	I	I	I	I	I
I	A-C	I	0.0	I 0.0	I	I	I	I	I	I
I	ALL	I	549.0	I 549.0	I	79.6	I 0.14	I	79.6	I 0.14

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

[Printed at 5:04:05 PM on 7/20/2007]

A R C A D Y 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 4.0 (FEBRUARY 2006)

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IN NO WAY RELIEVED OF THEIR RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

Run with file:-

"s:\1_OCSC_CURRENT_DRAWINGS\S__JOBS\Job-S237\Documents\AOP_16-07-07\Site_17_AM_Peak without Slips.vai"
(drive-on-the-left) at 12:53:49 on Monday, 23 July 2007

FILE PROPERTIES

RUN TITLE: Site 17: M2 Interchange - West Roundabout WITHOUT SLIPS: AM Peak
LOCATION:
DATE: 06/11/27
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - From Stamullen
ARM B - From Slip off M1
ARM C - From Development
ARM D - From Slip to M1

GEOMETRIC DATA

ARM D IS JUNCTION EXIT ONLY

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I	ARM A	I	3.50	I	5.00	I	20.00	I	20.00	I	31.50	I	50.0	I	0.559	I	22.133
I	ARM B	I	4.50	I	5.50	I	16.00	I	20.00	I	31.50	I	45.0	I	0.606	I	25.531
I	ARM C	I	4.50	I	7.50	I	21.50	I	20.00	I	31.50	I	55.0	I	0.654	I	30.319

V = approach half-width	L = effective flare length	D = inscribed circle diameter
E = entry width	R = entry radius	PHI = entry angle

TRAFFIC DEMAND DATA

(Only sets included in the current run are shown)

I	ARM	I	FLOW	SCALE(%)	I
I	A	I	100		I
I	B	I	100		I
I	C	I	100		I
I	D	I	100		I

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
 LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.
 DEMAND SET TITLE: SITE 14 AM WITHOUT SLIPS

DEMAND SET TITLE: SITE 14 AM WITHOUT SLIPS

		TURNING PROPORTIONS							
		TURNING COUNTS							
		(PERCENTAGE OF H.V.S)							
TIME		FROM/TO	ARM A	ARM B	ARM C	ARM D			
08.00 - 08.15	ARM A	0.000	0.000	0.626	0.374				
		0.0	0.0	2.3	1.4				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM B	0.493	0.000	0.507	0.000				
		9.1	0.0	9.4	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM C	0.648	0.000	0.000	0.352				
		1.4	0.0	0.0	0.8				
		(10.0)	(10.0)	(10.0)	(10.0)				
08.15 - 08.30	ARM A	0.000	0.000	0.626	0.374				
		0.0	0.0	2.8	1.6				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM B	0.493	0.000	0.507	0.000				
		10.7	0.0	11.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM C	0.650	0.000	0.000	0.350				
		1.6	0.0	0.0	0.9				
		(10.0)	(10.0)	(10.0)	(10.0)				

DEMAND SET TITLE: SITE 14 AM WITHOUT SLIPS

TIME	TURNING PROPORTIONS TURNING COUNTS (PERCENTAGE OF H.V.S)							
	FROM/TO	ARM A	ARM B	ARM C	ARM D			
08.30 - 08.45	ARM A	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.626 2.8 (10.0)	0.374 1.6 (10.0)			
	ARM B	0.493 10.7 (10.0)	0.000 0.0 (10.0)	0.507 11.0 (10.0)	0.000 0.0 (10.0)			
	ARM C	0.650 1.6 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.350 0.9 (10.0)			
08.45 - 09.00	ARM A	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.626 2.3 (10.0)	0.374 1.4 (10.0)			
	ARM B	0.493 9.1 (10.0)	0.000 0.0 (10.0)	0.507 9.4 (10.0)	0.000 0.0 (10.0)			
	ARM C	0.648 1.4 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.352 0.8 (10.0)			

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
ARM A	3.74	20.12	0.186		0.0	0.2	3.3		0.06
ARM B	18.47	20.95	0.881		0.0	6.2	76.5		0.31
ARM C	2.16	20.83	0.104		0.0	0.1	1.7		0.05

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
ARM A	4.39	20.12	0.218		0.2	0.3	4.1		0.06
ARM B	21.68	20.55	1.055		6.2	29.8	284.7		1.10
ARM C	2.54	20.01	0.127		0.1	0.1	2.1		0.06

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
ARM A	4.39	20.12	0.218		0.3	0.3	4.2		0.06
ARM B	21.86	20.55	1.064		29.8	51.2	608.8		2.14
ARM C	2.54	19.90	0.128		0.1	0.1	2.2		0.06

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	ARM A	3.74	20.12	0.186		0.3	0.2	3.5		0.06	I
I	ARM B	18.47	20.94	0.882		51.2	20.1	534.6		1.81	I
I	ARM C	2.16	20.02	0.108		0.1	0.1	1.8		0.06	I
I											I

QUEUE AT ARM A

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.2
08.30	0.3
08.45	0.3
09.00	0.2

QUEUE AT ARM B

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	6.2 *****
08.30	29.8 *****
08.45	51.2 *****
09.00	20.1 *****

QUEUE AT ARM C

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	ARM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	A	I	243.9	I	15.1	I	15.1	I
I	B	I	1207.2	I	1.25	I	1514.2	I
I	C	I	141.0	I	7.9	I	7.9	I
I	ALL	I	1592.1	I	0.96	I	1537.1	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

A R C A D Y 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 4.0 (FEBRUARY 2006)

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Run with file:-

"s:\1_OCSC_CURRENT_DRAWINGS\S__JOBS\Job-S237\Documents\AOP_16-07-07\Site_17_PM_Peak without Slips.vai"
(drive-on-the-left) at 12:52:53 on Monday, 23 July 2007

FILE PROPERTIES

RUN TITLE: Site 17: M2 Interchange - West Roundabout WITHOUT SLIPS: PM Peak
LOCATION:
DATE: 06/11/27
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - From Stamullen
ARM B - From Slip off M1
ARM C - From Development
ARM D - From Slip to M1

GEOMETRIC DATA

ARM D IS JUNCTION EXIT ONLY

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I	ARM A	I	3.50	I	5.00	I	20.00	I	20.00	I	31.50	I	50.0	I	0.559	I	22.133
I	ARM B	I	4.50	I	5.50	I	16.00	I	20.00	I	31.50	I	45.0	I	0.606	I	25.531
I	ARM C	I	4.50	I	7.50	I	21.50	I	20.00	I	31.50	I	55.0	I	0.654	I	30.319

V = approach half-width	L = effective flare length	D = inscribed circle diameter
E = entry width	R = entry radius	PHI = entry angle

TRAFFIC DEMAND DATA

(Only sets included in the current run are shown)

I ARM I FLOW SCALE(%) I			
I A	I	100	I
I B	I	100	I
I C	I	100	I
I D	I	100	I

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.
DEMAND SET TITLE: SITE 14 PM WITHOUT SLIPS

DEMAND SET TITLE: SITE 14 PM WITHOUT SLIPS

		TURNING PROPORTIONS						
		TURNING COUNTS						
		(PERCENTAGE OF H.V.S)						
TIME		FROM/TO	ARM A	ARM B	ARM C	ARM D		
17.00 - 17.15	ARM A	0.000	0.000	0.626	0.374			
		0.0	0.0	1.8	1.1			
		(10.0)	(10.0)	(10.0)	(10.0)			
	ARM B	0.488	0.000	0.512	0.000			
		6.8	0.0	7.2	0.0			
		(10.0)	(10.0)	(10.0)	(10.0)			
	ARM C	0.650	0.000	0.000	0.350			
		0.9	0.0	0.0	0.5			
		(10.0)	(10.0)	(10.0)	(10.0)			
17.15 - 17.30	ARM A	0.000	0.000	0.625	0.375			
		0.0	0.0	2.1	1.3			
		(10.0)	(10.0)	(10.0)	(10.0)			
	ARM B	0.488	0.000	0.512	0.000			
		8.0	0.0	8.4	0.0			
		(10.0)	(10.0)	(10.0)	(10.0)			
	ARM C	0.652	0.000	0.000	0.348			
		1.0	0.0	0.0	0.6			
		(10.0)	(10.0)	(10.0)	(10.0)			

DEMAND SET TITLE: SITE 14 PM WITHOUT SLIPS

TIME	TURNING PROPORTIONS TURNING COUNTS (PERCENTAGE OF H.V.S)							
	FROM/TO	ARM A	ARM B	ARM C	ARM D			
17.30 - 17.45	ARM A	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.625 2.1 (10.0)	0.375 1.3 (10.0)			
	ARM B	0.488 8.0 (10.0)	0.000 0.0 (10.0)	0.512 8.4 (10.0)	0.000 0.0 (10.0)			
	ARM C	0.652 1.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.348 0.6 (10.0)			
17.45 - 18.00	ARM A	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.626 1.8 (10.0)	0.374 1.1 (10.0)			
	ARM B	0.488 6.8 (10.0)	0.000 0.0 (10.0)	0.512 7.2 (10.0)	0.000 0.0 (10.0)			
	ARM C	0.650 0.9 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.350 0.5 (10.0)			

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
ARM A	2.87	20.12	0.143		0.0	0.2	2.4		0.06
ARM B	14.00	21.48	0.652		0.0	1.8	25.7		0.13
ARM C	1.37	22.44	0.061		0.0	0.1	1.0		0.05

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
ARM A	3.36	20.12	0.167		0.2	0.2	3.0		0.06
ARM B	16.43	21.18	0.776		1.8	3.3	45.2		0.20
ARM C	1.61	21.53	0.075		0.1	0.1	1.2		0.05

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
ARM A	3.36	20.12	0.167		0.2	0.2	3.0		0.06
ARM B	16.43	21.17	0.776		3.3	3.4	49.9		0.21
ARM C	1.61	21.50	0.075		0.1	0.1	1.2		0.05

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	ARM A	2.87	20.12	0.143		0.2	0.2	2.5		0.06	I
I	ARM B	14.00	21.47	0.652		3.4	1.9	30.5		0.14	I
I	ARM C	1.37	22.36	0.061		0.1	0.1	1.0		0.05	I
I											I

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.2
17.30	0.2
17.45	0.2
18.00	0.2

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	1.8	**
17.30	3.3	***
17.45	3.4	***
18.00	1.9	**

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.1
17.30	0.1
17.45	0.1
18.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	ARM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	A	I	186.9	I	10.9	I	10.9	I
I	B	I	912.9	I	0.17	I	151.3	I
I	C	I	89.4	I	4.4	I	4.4	I
I	ALL	I	1189.2	I	166.5	I	166.6	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.

* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.

* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

A R C A D Y 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 4.0 (FEBRUARY 2006)

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IN NO WAY RELIEVED OF THEIR RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

Run with file:-

"s:\1_OCSC_CURRENT_DRAWINGS\S__JOBS\Job-S237\Documents\AOP_16-07-07\Site_17_AM_Peak with Slips.vai"
(drive-on-the-left) at 13:08:00 on Monday, 23 July 2007

FILE PROPERTIES

RUN TITLE: Site 17: M2 Interchange - West Roundabout WITH SLIPS: AM Peak
LOCATION:
DATE: 06/11/27
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - From Stamullen
ARM B - From Slip off M1
ARM C - From Development
ARM D - From Slip to M1

GEOMETRIC DATA

ARM D IS JUNCTION EXIT ONLY

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I	ARM A	I	3.50	I	5.00	I	20.00	I	20.00	I	31.50	I	50.0	I	0.559	I	22.133
I	ARM B	I	4.50	I	5.50	I	16.00	I	20.00	I	31.50	I	45.0	I	0.606	I	25.531
I	ARM C	I	4.50	I	7.50	I	21.50	I	20.00	I	31.50	I	55.0	I	0.654	I	30.319

V = approach half-width
E = entry width

L = effective flare length
R = entry radius

D = inscribed circle diameter
PHI = entry angle

TRAFFIC DEMAND DATA

(Only sets included in the current run are shown)

I ARM I FLOW SCALE(%) I			
I A	I	100	I
I B	I	100	I
I C	I	100	I
I D	I	100	I

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.
DEMAND SET TITLE: SITE 17 AM WITH SLIPS

DEMAND SET TITLE: SITE 17 AM WITH SLIPS

		TURNING PROPORTIONS						
		TURNING COUNTS						
		(PERCENTAGE OF H.V.S)						
TIME		FROM/TO	ARM A	ARM B	ARM C	ARM D		
08.00 - 08.15		ARM A	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.626 2.3 (10.0)	0.374 1.4 (10.0)		
		ARM B	1.000 9.1 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)		
		ARM C	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)		
08.15 - 08.30		ARM A	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.626 2.8 (10.0)	0.374 1.6 (10.0)		
		ARM B	1.000 10.7 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)		
		ARM C	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)		

DEMAND SET TITLE: SITE 17 AM WITH SLIPS

TURNING PROPORTIONS									
TURNING COUNTS									
(PERCENTAGE OF H.V.S)									
TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D				
08.30 - 08.45	ARM A	0.000	0.000	0.626	0.374				
		0.0	0.0	2.8	1.6				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM B	1.000	0.000	0.000	0.000				
		10.7	0.0	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM C	0.000	0.000	0.000	0.000				
		0.0	0.0	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)				
08.45 - 09.00	ARM A	0.000	0.000	0.626	0.374				
		0.0	0.0	2.3	1.4				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM B	1.000	0.000	0.000	0.000				
		9.1	0.0	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)				
	ARM C	0.000	0.000	0.000	0.000				
		0.0	0.0	0.0	0.0				
		(10.0)	(10.0)	(10.0)	(10.0)				

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
ARM A	3.74	20.12	0.186		0.0	0.2	3.3		0.06
ARM B	9.11	20.95	0.435		0.0	0.8	11.0		0.08
ARM C	2.16	22.80	0.095		0.0	0.1	1.5		0.05

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
ARM A	4.39	20.12	0.218		0.2	0.3	4.1		0.06
ARM B	10.69	20.55	0.520		0.8	1.1	15.6		0.10
ARM C	2.54	21.47	0.118		0.1	0.1	2.0		0.05

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
ARM A	4.39	20.12	0.218		0.3	0.3	4.2		0.06
ARM B	10.69	20.55	0.520		1.1	1.1	16.1		0.10
ARM C	2.54	21.45	0.118		0.1	0.1	2.0		0.05

I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I	08.45-09.00										I
I	ARM A	3.74	20.12	0.186		0.3	0.2	3.5		0.06	I
I	ARM B	9.11	20.94	0.435		1.1	0.8	12.0		0.08	I
I	ARM C	2.16	22.75	0.095		0.1	0.1	1.6		0.05	I
I											I

QUEUE AT ARM A

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.2
08.30	0.3
08.45	0.3
09.00	0.2

QUEUE AT ARM B

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.8 *
08.30	1.1 *
08.45	1.1 *
09.00	0.8 *

QUEUE AT ARM C

TIME SEGMENT	NO. OF
ENDING	VEHICLES
	IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	ARM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I		I		I	* DELAY *	I	* DELAY *	I
I		I		I		I		I
I		I	(VEH)	I	(MIN)	I	(MIN)	I
I		I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	A	I	243.9	I	15.1	I	15.1	I
I	B	I	594.0	I	54.7	I	54.7	I
I	C	I	0.0	I	7.1	I	7.1	I
I	ALL	I	837.9	I	76.9	I	76.9	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.

* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.

* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

A R C A D Y 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 4.0 (FEBRUARY 2006)

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Run with file:-

"s:\1_OCSC_CURRENT_DRAWINGS\S__JOBS\Job-S237\Documents\AOP_16-07-07\Site_17_PM_Peak with Slips.vai"
(drive-on-the-left) at 13:17:44 on Monday, 23 July 2007

FILE PROPERTIES

RUN TITLE: Site 17: M1 Interchange - West Roundabout WITH SLIPS: PM Peak
LOCATION:
DATE: 11/06/27
CLIENT:
ENUMERATOR:
JOB NUMBER:
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - From Stamullen
ARM B - From Slip off M1
ARM C - From Development
ARM D - From Slip to M1

GEOMETRIC DATA

ARM D IS JUNCTION EXIT ONLY

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I	ARM A	I	3.50	I	5.00	I	20.00	I	20.00	I	31.50	I	50.0	I	0.559	I	22.133
I	ARM B	I	4.50	I	5.50	I	16.00	I	20.00	I	31.50	I	45.0	I	0.606	I	25.531
I	ARM C	I	4.50	I	7.50	I	21.50	I	20.00	I	31.50	I	55.0	I	0.654	I	30.319

V = approach half-width	L = effective flare length	D = inscribed circle diameter
E = entry width	R = entry radius	PHI = entry angle

TRAFFIC DEMAND DATA

(Only sets included in the current run are shown)

I ARM I FLOW SCALE(%) I			
I A	I	100	I
I B	I	100	I
I C	I	100	I
I D	I	100	I

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.
DEMAND SET TITLE: SITE 17 PM WITH SLIPS

DEMAND SET TITLE: SITE 17 PM WITH SLIPS

		TURNING PROPORTIONS							
		TURNING COUNTS							
		(PERCENTAGE OF H.V.S)							
TIME		FROM/TO	ARM A	ARM B	ARM C	ARM D			
17.00 - 17.15		ARM A	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.626 1.8 (10.0)	0.374 1.1 (10.0)			
		ARM B	1.000 6.8 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)			
		ARM C	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)			
17.15 - 17.30		ARM A	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.625 2.1 (10.0)	0.375 1.3 (10.0)			
		ARM B	1.000 8.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)			
		ARM C	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)	0.000 0.0 (10.0)			

DEMAND SET TITLE: SITE 17 PM WITH SLIPS

TIME	TURNING PROPORTIONS TURNING COUNTS (PERCENTAGE OF H.V.S)							
	FROM/TO	ARM A	ARM B	ARM C	ARM D			
17.30 - 17.45	ARM A	0.000	0.000	0.625	0.375			
		0.0	0.0	2.1	1.3			
		(10.0)	(10.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000	0.000			
		8.0	0.0	0.0	0.0			
		(10.0)	(10.0)	(10.0)	(10.0)			
	ARM C	0.000	0.000	0.000	0.000			
		0.0	0.0	0.0	0.0			
		(10.0)	(10.0)	(10.0)	(10.0)			
17.45 - 18.00	ARM A	0.000	0.000	0.626	0.374			
		0.0	0.0	1.8	1.1			
		(10.0)	(10.0)	(10.0)	(10.0)			
	ARM B	1.000	0.000	0.000	0.000			
		6.8	0.0	0.0	0.0			
		(10.0)	(10.0)	(10.0)	(10.0)			
	ARM C	0.000	0.000	0.000	0.000			
		0.0	0.0	0.0	0.0			
		(10.0)	(10.0)	(10.0)	(10.0)			

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
ARM A	2.87	20.12	0.143		0.0	0.2	2.4		0.06
ARM B	6.83	21.48	0.318		0.0	0.5	6.8		0.07
ARM C	1.37	24.66	0.056		0.0	0.1	0.9		0.04

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
ARM A	3.36	20.12	0.167		0.2	0.2	3.0		0.06
ARM B	8.01	21.18	0.378		0.5	0.6	8.9		0.08
ARM C	1.61	23.66	0.068		0.1	0.1	1.1		0.05

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
ARM A	3.36	20.12	0.167		0.2	0.2	3.0		0.06
ARM B	8.01	21.17	0.378		0.6	0.6	9.1		0.08
ARM C	1.61	23.65	0.068		0.1	0.1	1.1		0.05

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	ARM A	2.87	20.12	0.143		0.2	0.2	2.5		0.06	I
I	ARM B	6.83	21.47	0.318		0.6	0.5	7.2		0.07	I
I	ARM C	1.37	24.63	0.056		0.1	0.1	0.9		0.04	I

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.2
17.30	0.2
17.45	0.2
18.00	0.2

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.5
17.30	0.6 *
17.45	0.6 *
18.00	0.5

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.1
17.30	0.1
17.45	0.1
18.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	ARM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	I	(VEH)	I	(MIN)	I	(MIN)	I
I	I	I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	A	I	186.9	I	10.9	I	10.9	I
I	B	I	445.2	I	31.9	I	31.9	I
I	C	I	0.0	I	3.9	I	3.9	I
I	ALL	I	632.1	I	46.8	I	46.8	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.

* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.

* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====



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