

# SOCIAL HOUSING BUNDLE 3

## PROPOSED DEVELOPMENT AT ATHY

Traffic and Transport Assessment



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Traffic and Transport  
Assessment  
P03  
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## REPORT

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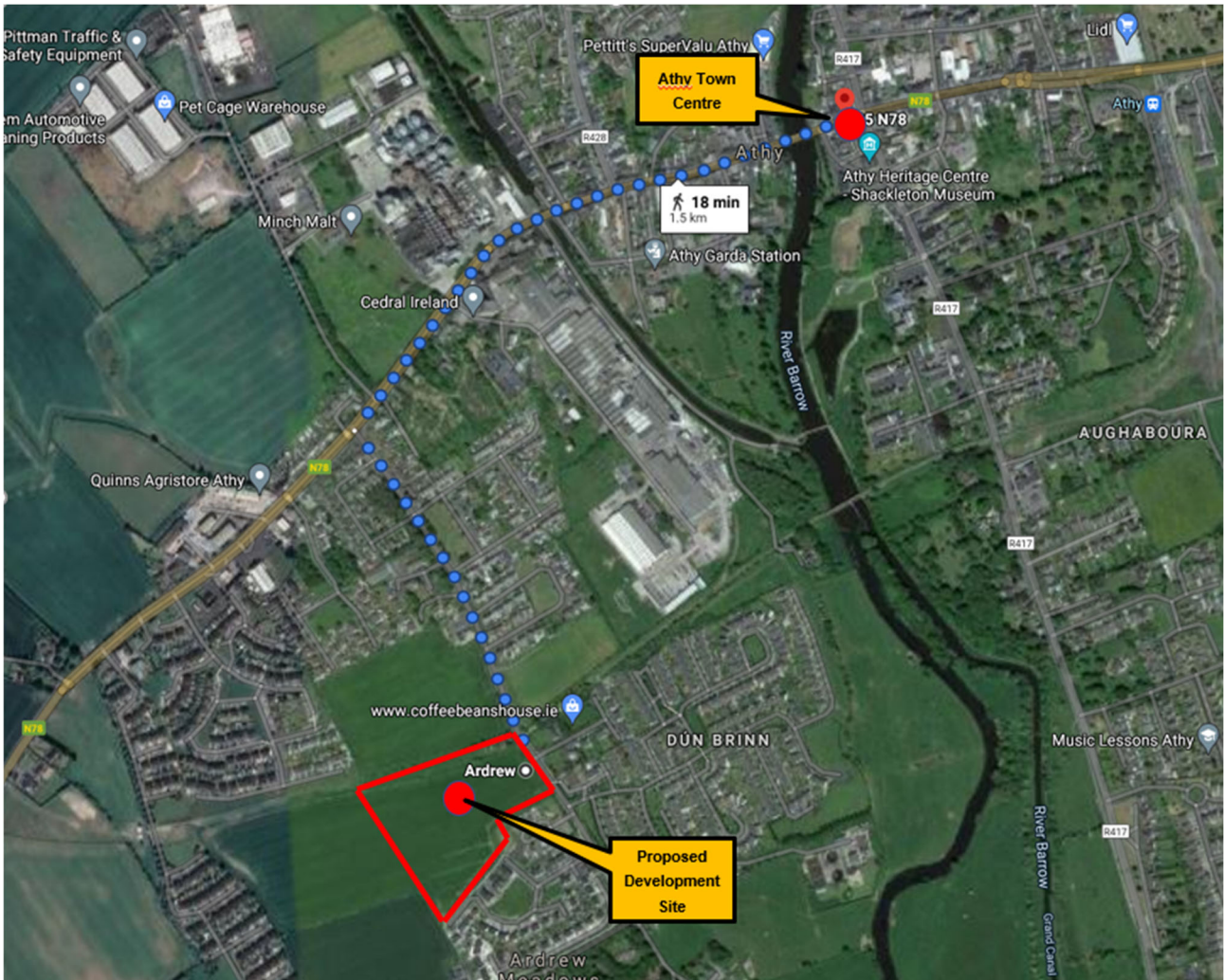
# 1 INTRODUCTION

RPS are the appointed Civil and Structural Engineering advisors for the proposed residential development at Fortbarrington Road, Athy, County Kildare. The proposed development includes construction of approx. 73 no. dwellings which will be sited over a land area of 2.45ha.

The site location is shown on the Site Location Map in **Appendix A** and in **Figure 1-1** below.

As part of the Part 8 Planning application for the social housing development, RPS has carried out a Traffic and Transport Assessment (TTA).

**Figure1-1: Site Location**



## 1.1 Objective

The objective of this TTA is to assess the likely impact of the proposed development on the surrounding road network.

## 1.2 Reference Documents

This TTA was prepared in accordance with and with cognisance of the following:



- Transport Infrastructure Ireland (TII) Traffic and Transport Assessment Guidelines (May 2014),
- The Draft Athy Local Area Plan 2021 - 2027,
- Kildare County Development Plan 2017 – 2023,
- TII Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections.

### 1.3 Methodology

#### 1.3.1 Approach

This TTA includes the following;

- Relevant policy review,
- Establishment of existing and future traffic flows and development trip generation, and
- Appraisal of predicted traffic flows, access proposals and measures for active travel users.

#### 1.3.2 Traffic Analysis

Following consultation with Kildare County Council (KCC) Roads and Traffic Department the following junctions were identified as requiring capacity analysis:

- N74/Fortbarrington Road
- Fortbarrington Road/Bleach Road Junction
- Proposed Development Site/Fortbarrington Road

The locations of these junctions are shown in **Figure 1-2** below.

**Figure 1-2: Junctions to be Analysed**



### 1.3.3 Baseline Traffic Flows

Traffic counts were carried out at the junctions listed in Section 1.3.2 by Irish Traffic Surveys Ltd. on 15<sup>th</sup> June 2021. Whilst it is understood that these traffic counts were carried out during the Covid-19 Pandemic, which has influenced traffic behaviour and outside of the school calendar, it was agreed following discussions with KCC that these counts should be used to inform this report due to a lack of historical data.

### 1.3.4 Establishment of Development Traffic Flows

Traffic generated by the proposed development was calculated using the Trip Rate Information Computer System (TRICS) trip rate calculations. TRICS trip rates are calculated by using surveyed trips to and from similar developments and are explained on TRICS.org as being;

“Trip rates show the number of traffic/people movements in and out of a development (or an average of a number of developments within the same land use category), for a given trip rate parameter factor. For example, when trip rates are calculated by Gross Floor Area (GFA), they are shown per 100m<sup>2</sup> of GFA. Using this factor, users can apply trip rates to potential developments, and are encouraged to achieve a balance between their selection criteria and the size of their selected data sample to achieve this aim.”

“Trip rates are calculated as follows: Mean average trip rates are calculated when there are at least 2 surveys included in a selected list (trip rates for an individual site can also be calculated). The calculation process consists of 3 parts, and these apply to every hour of the survey duration, for arrivals, departures and totals counts:”

### 1.3.5 Traffic Modelling

Priority junctions were analysed using the computer software programmes PICADY (Priority Intersection Capacity and Delay). LinSig and PICADY are computer programmes for calculating estimates of the capacity of major /minor road junctions. The geometric details of the junction are applied to the programme, together with details of traffic flows and turning movements. The PICADY programme analyses the junctions in relation to the various traffic flows and determines the capacity of each approach using the Ratio of Flow to Capacity (RFC). An RFC of 1.0 indicates that a junction is operating at its maximum capacity. An RFC of approximately 0.85 is considered to represent the maximum practical capacity of a junction/roundabout when queuing and delays will occur. A junction operating at more than its practical capacity will operate with reduced efficiency. The programmes also calculate the peak queue length on each approach.

LinSig predicts capacities, queues and delays at signalised junctions. In ‘LinSig’, the capacity of a junction is determined by the DOS value (Degree of Saturation %). A junction with a DOS of 90% is considered to be at practical capacity.

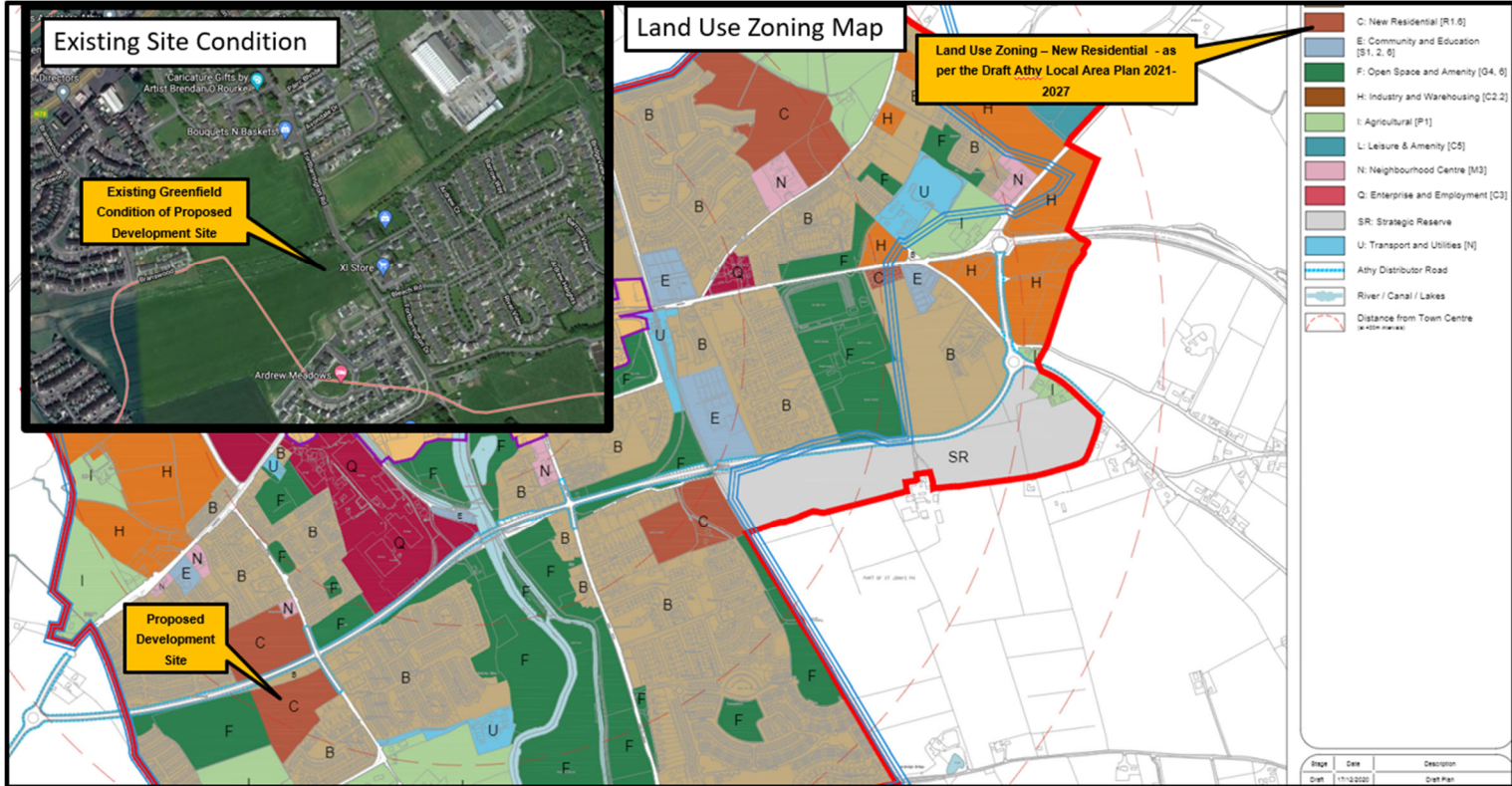
The capacity analysis results are summarised under the following headings: -

- ‘DOS’ – Degree of Saturation (as described above).
- ‘Mean Max. Queue’ – This refers to the maximum predicted queue (in PCUs) during the peak hour.

## 2 RECEIVING ENVIRONMENT

The proposed development site is currently a green field within a built up urban area site zoned for new residential land use in the Draft Athy Local Area Plan 2021-2027 as shown below in **Figure 2-1**

**Figure 2-1 Existing Site Conditions**

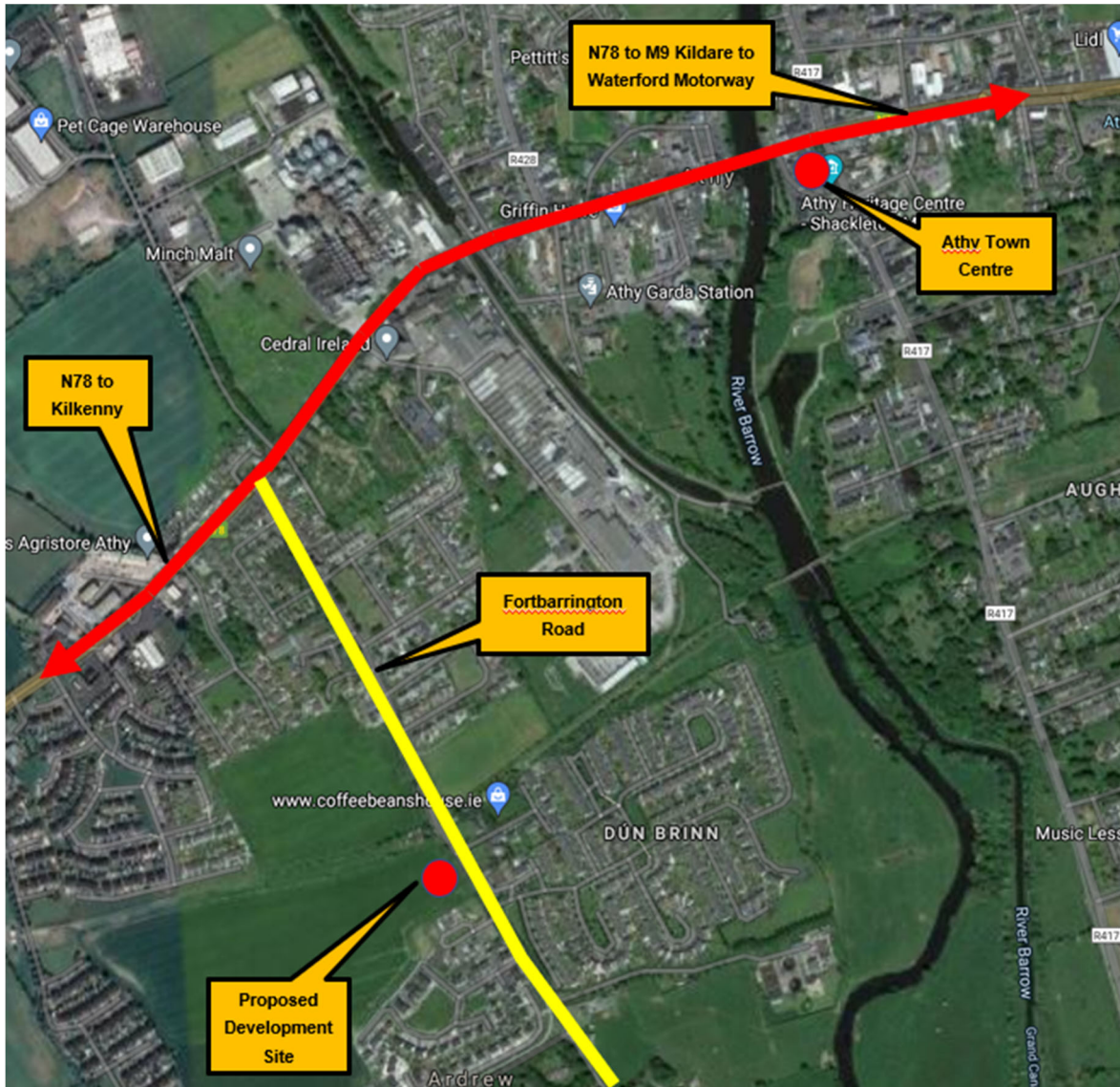


### 2.1 Surrounding Road Network

**Figure 2-2** shows the road network in the vicinity of the proposed development site. This network consists of the N78 National Secondary Road, which runs through the east-west axis of Athy. The Fortbarrington Road runs north to south adjacent to the proposed development site and intersects the N78 to the north of the site, via a signalised junction and provides the shortest access route to the town centre.



Figure 2-2 Surrounding Road Network



### 2.1.1 N78 / Fortbarrington Road Junction

The primary connection to Athy town centre from the proposed development site and neighbouring housing estates is via the junction with the N78. The N78 eastbound approach is two-lane with a combined entry width of 8.5m that tapers back to a 4m lane width (*one-lane approach with a right-turning lane for 45m before Fortbarrington junction*). The N78 westbound approach arm has a single lane, which has a 3.5m entry width. The speed limit on the westbound approach is 50kph. The speed limit is 50kph approaching the junction, with the limit increasing to 60kph when approximately 600m west of the junction, reflecting the change in profile to a rural characteristic, at the southwest of Athy

The Fortbarrington Road approach is single arm, which also has a 3.5m entry width. Both sides of Fortbarrington Road have footpaths of approximately 1.8m in width.

East of the Fortbarrington Road junction, the N78 has another junction with Upper William Street. This road leads to an industrial estate with several businesses. **Image 2-4** below displays the N78 with the Upper William Street junction in the foreground and the signalised Fortbarrington Road junction in the background.

Views of the N78 - Fortbarrington Road junction can be seen below in **Image 2-1** to **Image 2-4**.



Image 2-1: N78 (eastbound approach)



Image 2-2: N78 (westbound approach)



Image 2-3: Fortbarrington Road entry



Image 2-4: Upper William Street junction

## 2.1.2 Fortbarrington Road

Fortbarrington Road is a 7.5m wide local road linking the N78, in the southeast of Athy, to the Fortbarrington area, south of Athy. It provides access to numerous housing estates: Páirc Bhríde and Avondale Court to the north and Dún Brinn further south. The speed limit on Fortbarrington Road is 50kph from the N78 to the proposed development site, due to the built-up surrounding area. Southbound from the development site the speed limit is increased to 60kph, reflecting the changing surroundings, with subsequent housing estates enclosed from Fortbarrington Road.

There is one zebra crossing across Fortbarrington Road, south of Bleach Road, the entrance to the Dún Brinn housing estate. From the N78 to Avondale Drive there are footpaths on either side of the road, roughly 2m in width.

Views of Fortbarrington Road looking northbound are seen below in **Image 2-5** and **Image 2-6**.





**Image 2-5: Approaching Bleach Road (right)    Image 2-6: Development Site (left)**

## **2.2    Existing Pedestrian and Traffic Calming Facilities**

The surrounding road network includes a well-connected network of footpaths in good condition as evident in the previous Images 2-5 and 2-6. These footpaths link the proposed development site to a number of local amenities such as schools, shops and healthcare facilities in Athy within a comfortable walking distance of approximately 1.5km (18 minutes). Also present along this network of footpaths are pedestrian crossings in the form of uncontrolled and signal controlled crossings. Traffic calming in the form of speed ramps and raised tables are also present to assist pedestrian safety.



Figure 2-3 Walking Distance to Athy Amenities



The junction of N78 and Fortbarrington Road approximately 200m north of the proposed development site includes a controlled pedestrian crossing point with push button control. West of the junction there are approximately 2m footpaths on both sides. East of the junction the footpath on the north side of the N78 is approximately 2m, and the footpath on the south side of the N78 is an extended 4m leading up to the junction for approximately 90m. Fortbarrington Road has footpaths of approximately 1.8m width on both sides of the approach to the N78 junction for approximately 315m. A footpath on one side is provided along the northern side of the Fortbarrington Road for the remaining 260m to the proposed development site.

### 2.3 Existing Bus Facilities

The nearest bus stop to the proposed development site is located approximately 600m (8 minute walk) to the north at the junction of the N78 and the Fortbarrington Road. This stop is served by the 717 Bus which links Athy to Dublin City and Clonmel Co. Tipperary including numerous stops along this route. Bus services for the Athy area are located centrally within the town. This is a 15 minute walk from the proposed development site, via Fortbarrington Road and the N78, to the bus stops in Athy.

### 2.4 Existing Rail Facilities

Athy Train Station is located approximately 2km from the proposed development site. Athy Train Station includes parking facilities which allows commuters to park and use the train. Athy Train Station links Dublin Heuston Station to Waterford-Clonmel-Limerick Junction where connections with Limerick, Cork and Galway can also be accessed.

### 3 FUTURE CONDITIONS

#### 3.1 Proposed Development

The proposed development will consist of 74 housing units, with a mix of apartments and between one and four bed housing units. **Table 3.1** below highlights the distribution of development types for the proposed site.

**Table 3.1 Development Type**

Unit Type	1 Bed	2 Bed	3 Bed	4 Bed	Total
House	4	24	21	5	54
Apartment	19	-	-	-	19
				Total	73

The proposed development will front on to and be accessed via the Fortbarrington Road to the eastern boundary of the site. The proposed development site will have three areas of housing units, one block at the north eastern corner of the site, one at the north western corner and the third will consist of a row of units through the centre and south western extents of the site. Each block will be serviced via a network of internal access roads with a carriageway width of 6m.

This is illustrated in the Proposed Site Plan Drawing in **Appendix A** and **Figure 3-1** below.

**Figure 3-1 Proposed Development Site**



## 3.2 Surrounding Road and Footpath Network

As stated previously in Section 3.1, the proposed development will include a new network of access roads that will join Fortbarrington Road at a single location to the north east of the proposed development site. These roads will be 6m in width and will include footpaths along the fronts of the housing units and green area and will connect to a proposed section of footpath along the eastern boundary of the proposed development site along the Fortbarrington Road. Pedestrian crossings will be included in the form of uncontrolled crossings to guide pedestrians to the opposite side of the Fortbarrington Road to connect to the existing footpath network that will guide pedestrians to Athy Town. No other changes to the surrounding road network are proposed as part of this development.



## 4 TRAFFIC ANALYSIS

### 4.1 Existing Traffic

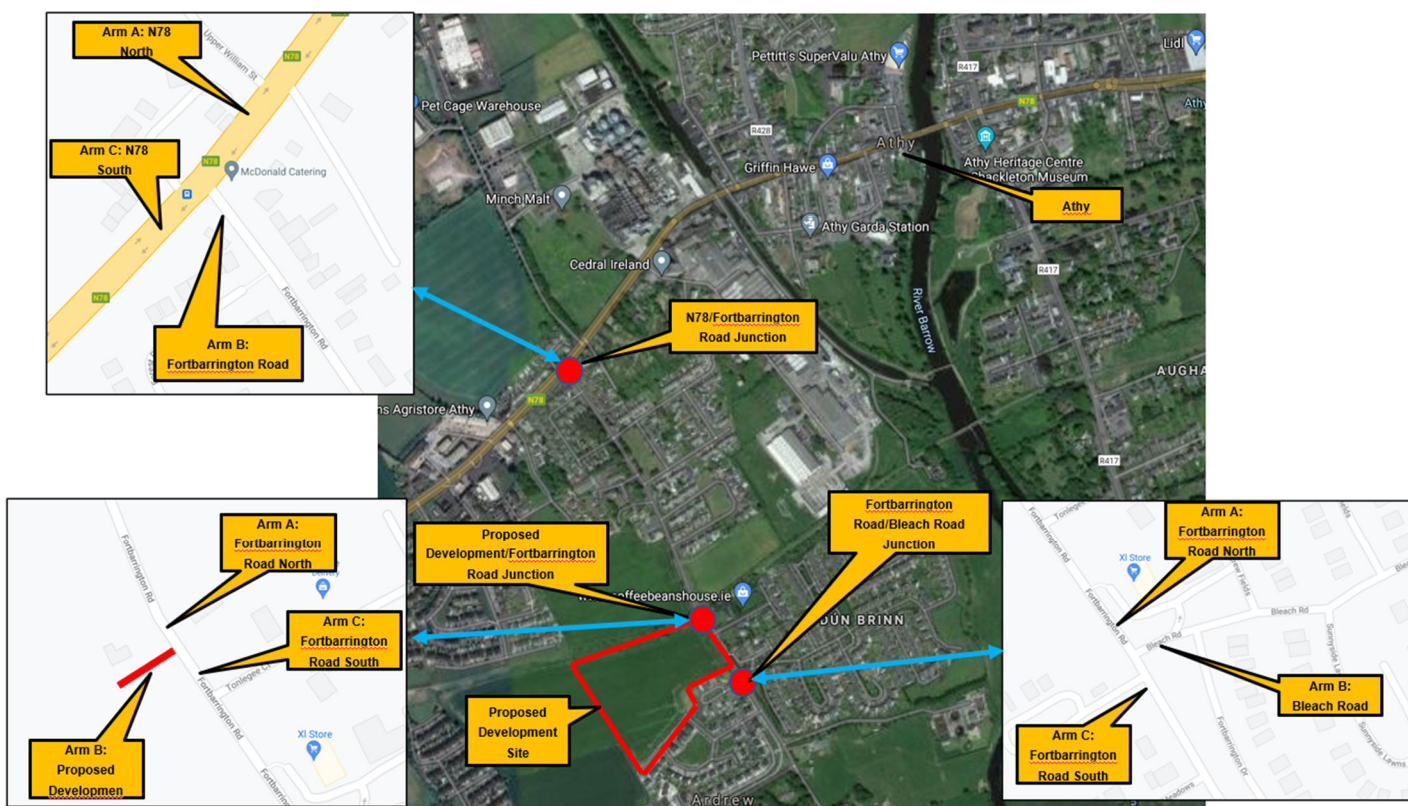
#### 4.1.1 Junctions Analysed

As stated previously in **Section 1.7** the following junctions will be analysed in this assessment.

- N74/Fortbarrington Road (signalised junction)
- Fortbarrington Road/Bleach Road Junction (priority junction)
- Proposed Development Site/Fortbarrington Road (priority junction)

The locations of these junctions and the Arm naming convention used in this analysis are shown below in **Figure 4-1**.

**Figure 4-1: Junctions Analysed**



#### 4.1.2 Time Periods Analysed

In addition to the existing junction geometrics, traffic volumes in the form of PCU values and turning movements during peak AM peak period (08:00-09:15) and the PM peak period (17:00-18:15) were input into the ARCADY and PICADY models. Traffic flows representing the existing, Opening Year 2025, Opening year + 5 Years (2027) and Opening Year +15 Years (2037). Future year traffic was calculated using the TII Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections.

### 4.1.3 Units

The existing traffic flows recorded as detailed in **Section 1.4.2.2** were converted to Passenger Car Unit's (PCU's) using the below conversion rates:

- Motorcycle, Car, LGV = 1PCU
- OGV1, OGV2 & PSV = 2PCU

PCU's can be described as the impact a mode of transport has on traffic variables such as headway, speed and density compared to a single car.

### 4.1.4 Existing Traffic Flows

Based on the above and the traffic count data described previously, the below peak traffic flows illustrated in the schematic in **Figure's 4-2 and 4-3**

**Figure 4-2: Existing AM Peak Period Traffic Flows**

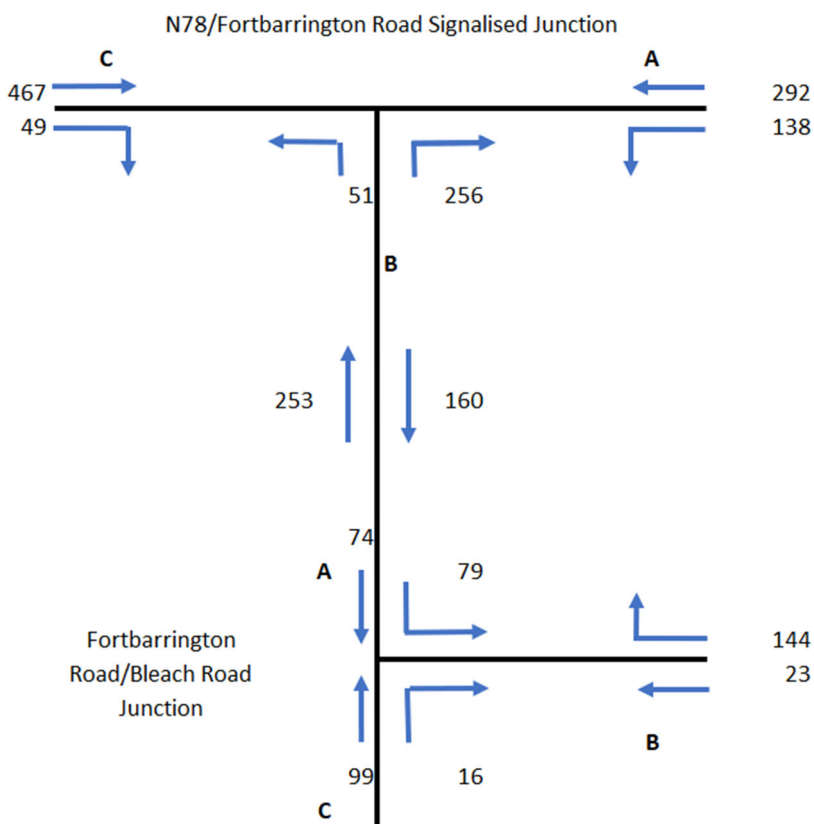
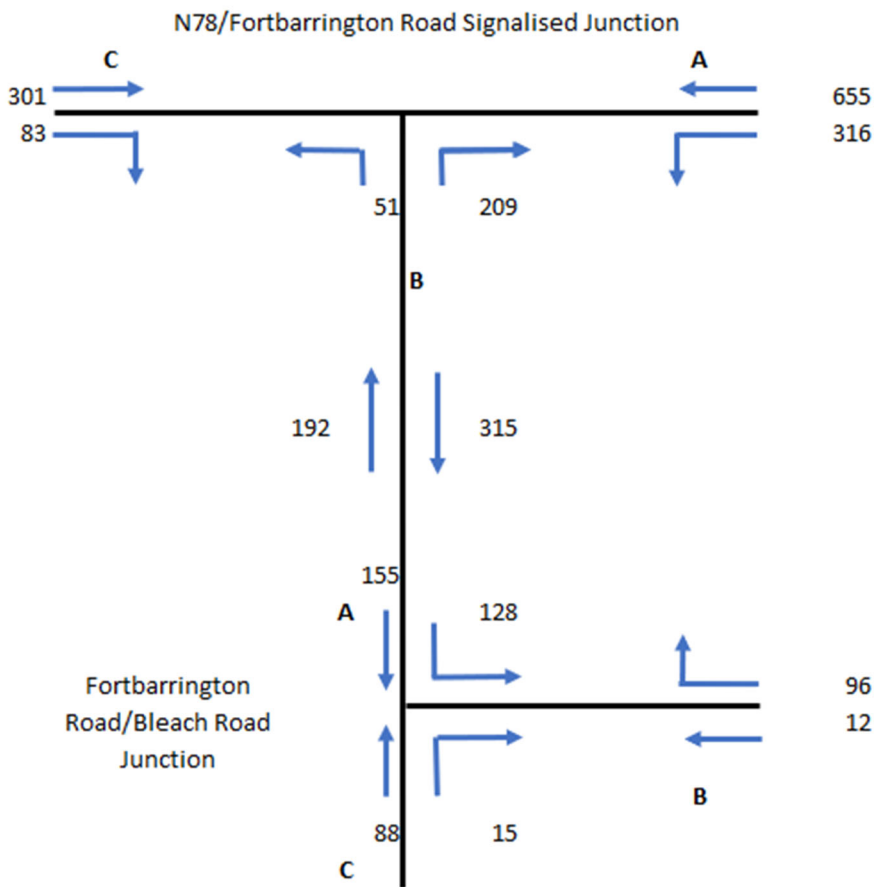


Figure 4-3: Existing PM Peak Period Traffic Flows



## 4.2 Future Traffic

### 4.2.1 Surrounding Road Network

The future years analysed are 2025 (opening year of the development), 2030, and 2040 based on the guidance in the TII Traffic and Transport Assessment Guidelines (May 2014), where it states opening year, 5 and 15 years post development opening should be analysed in a Traffic and Transport Assessment. As previously stated in Section 1, the TII Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections May 2019 was used to calculate future traffic volumes on the road network surrounding the proposed development site. These guidelines give growth factors to be applied to traffic volumes based on future year projections.

The growth factors used in this assessment are;

- 2021-2030 = 1.0140
- 2030-2040 = 1.0048



### 4.3 Travel Demand from the New Development

The development will consist of 74 housing units, with a mix of one, two, three and four bed housing units, as described in **Table 3.1** previously.

#### 4.3.1 Trip Generation

As described in **Section 1.4.1.2**, trip rates were obtained using TRICS. This resulted in the following estimated traffic volumes being generated by the development;

- AM Peak Period: 19 Departures, 7 Arrivals
- PM Peak Period: 15 Departures, 18 Arrivals

#### 4.3.2 Trip Distribution

Existing traffic flows were established based on the traffic counts undertaken at the three junctions to be analysed, as described previously in **Section 1.4.2.2**. A directional flow for the traffic at each junction was established by calculating the percentage turning ratios at each junction. This is used to determine the directional flow at each junction and to establish a travel pattern for traffic generated by the proposed development based on the existing patterns.

The proportions of traffic flow generated from the proposed development site were based on the ratios derived at the Fortbarrington Road/Bleach Road junction due to the similar natures of these junction types. The Bleach Road is a Cul de Sac link road to an existing network of housing estate access roads, therefore it is considered reasonable to assume that the traffic generated by this development will follow a similar pattern as that of the proposed new housing development.

These traffic flow ratios are shown in the below **Figures 4-4** and **4-5**

**Figure 4-4: Existing AM Peak Period Traffic Turning Ratios**

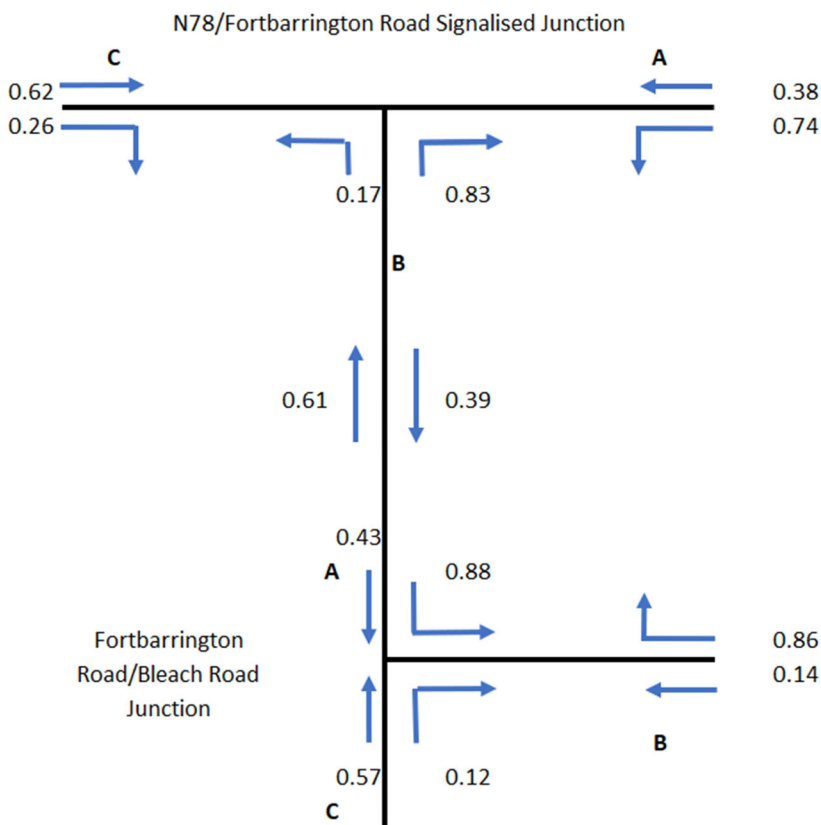
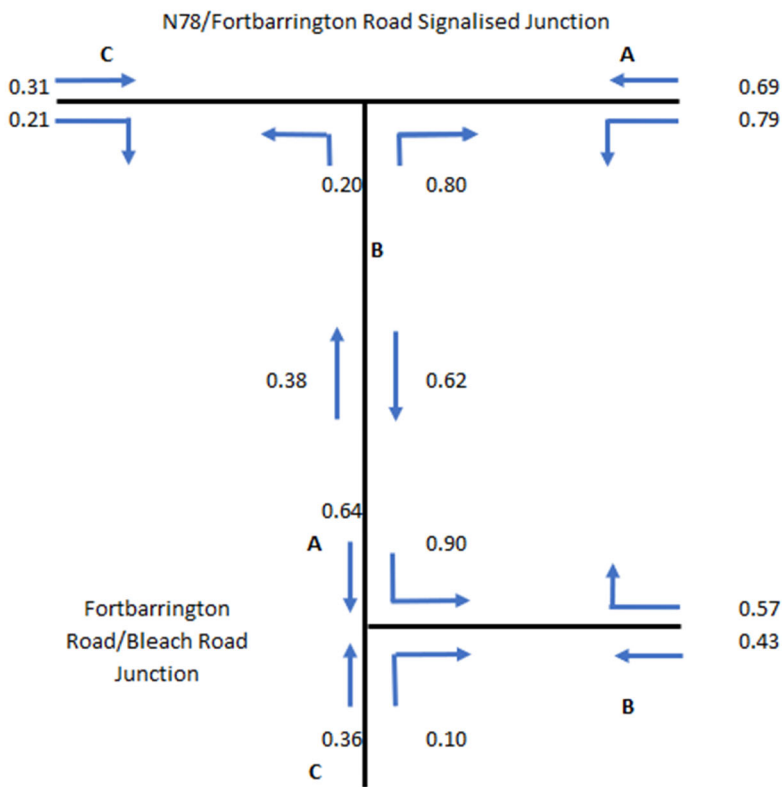


Figure 4-5: Existing PM Peak Period Traffic Turning Ratios



### 4.3.3 Trip Assignment

The future traffic generated by the proposed development was added to the future traffic volumes on the external road network at the three junctions to be analysed as previously noted. This resulted in the below traffic flows being generated on the surrounding road network;

Figure 4-6: AM Peak Period Traffic Opening Year 2025

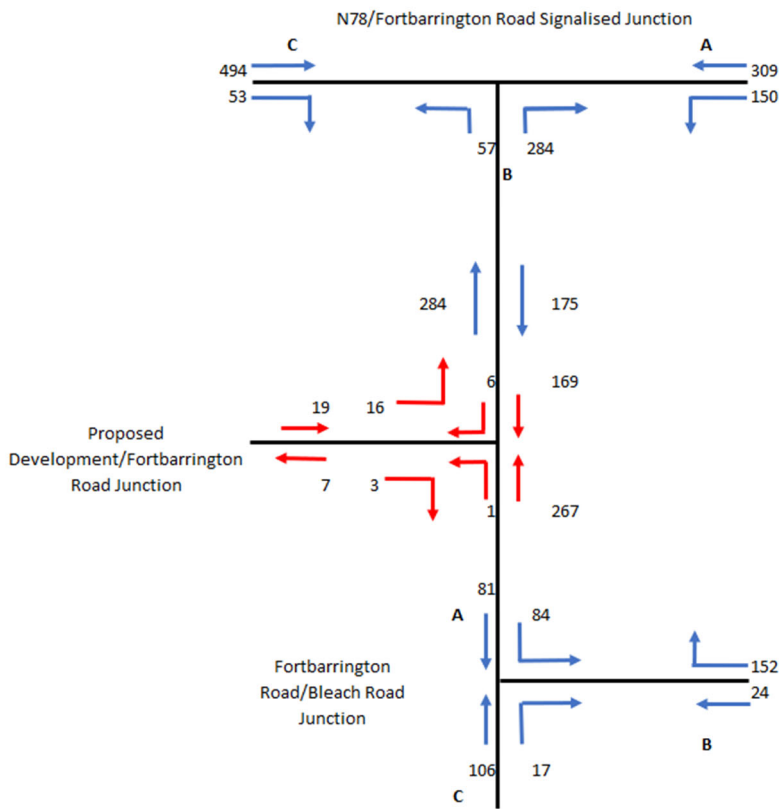


Figure 4-7: AM Peak Period Traffic Year 2030

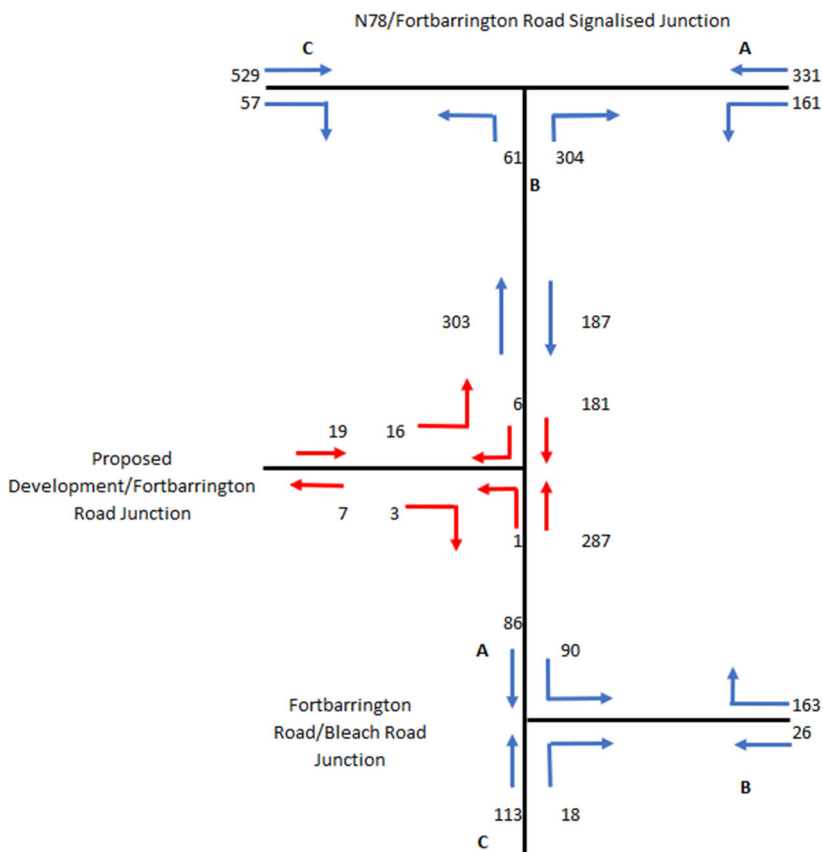




Figure 4-8: AM Peak Period Traffic Year 2040

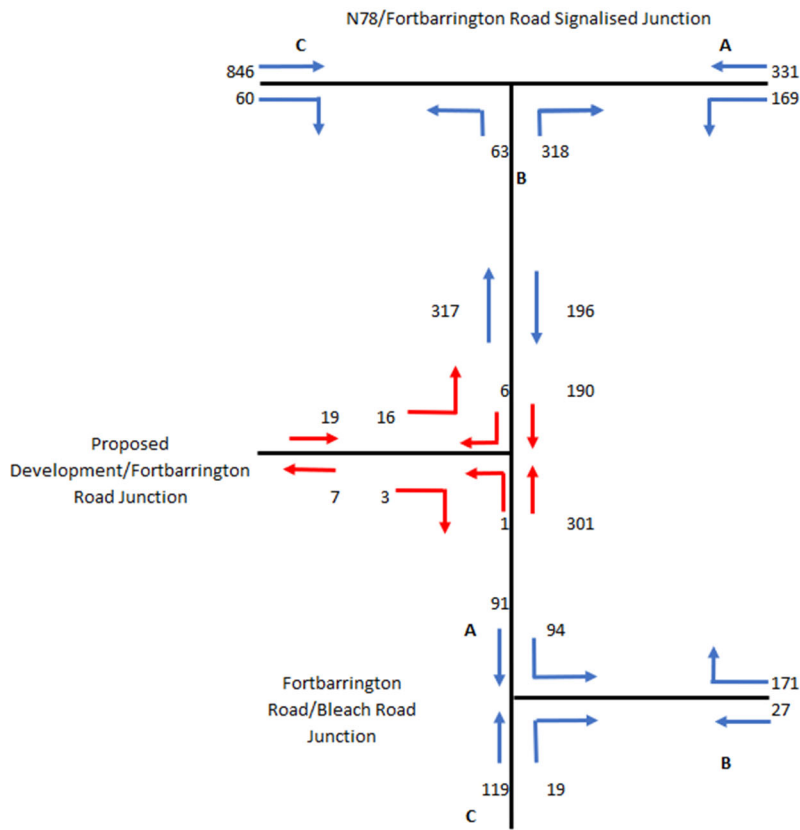


Figure 4-9: PM Peak Period Traffic Opening Year 2025

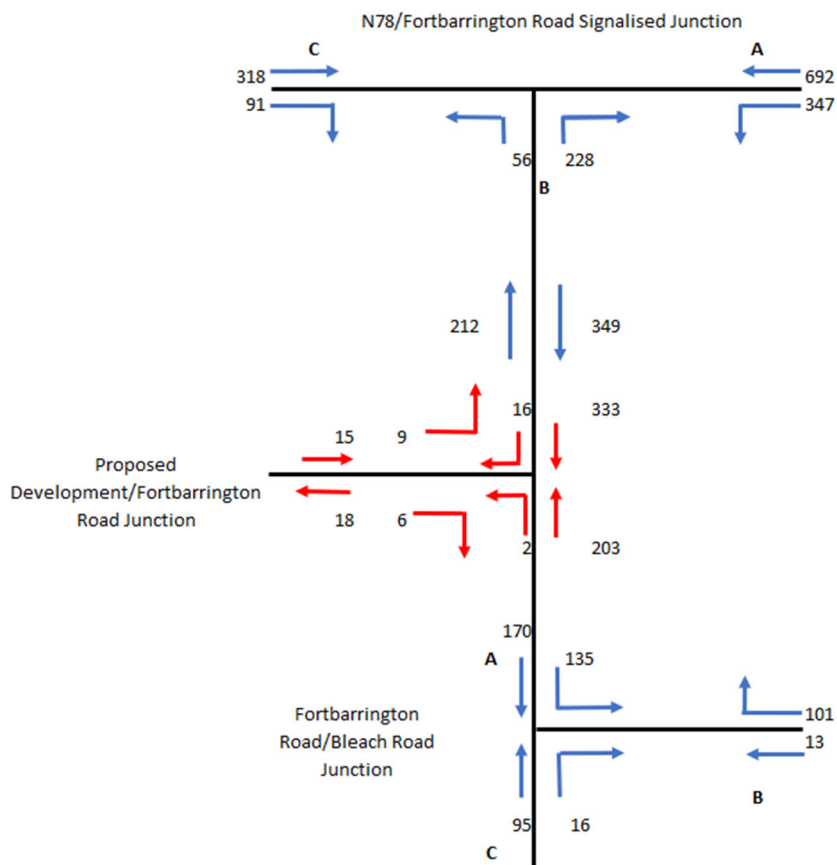


Figure 4-10 PM Peak Period Traffic Year 2030

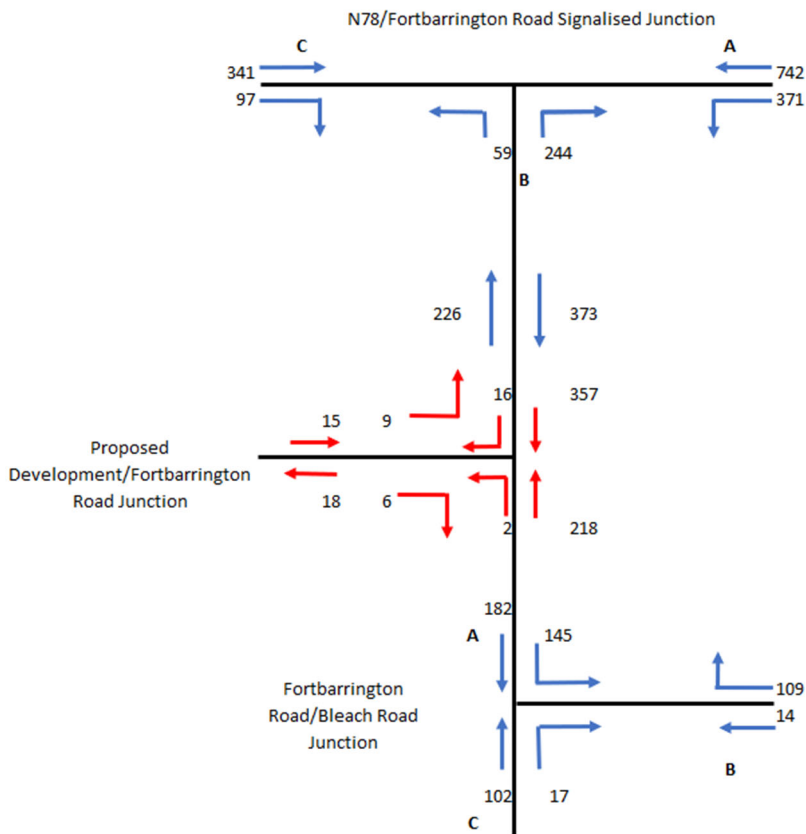
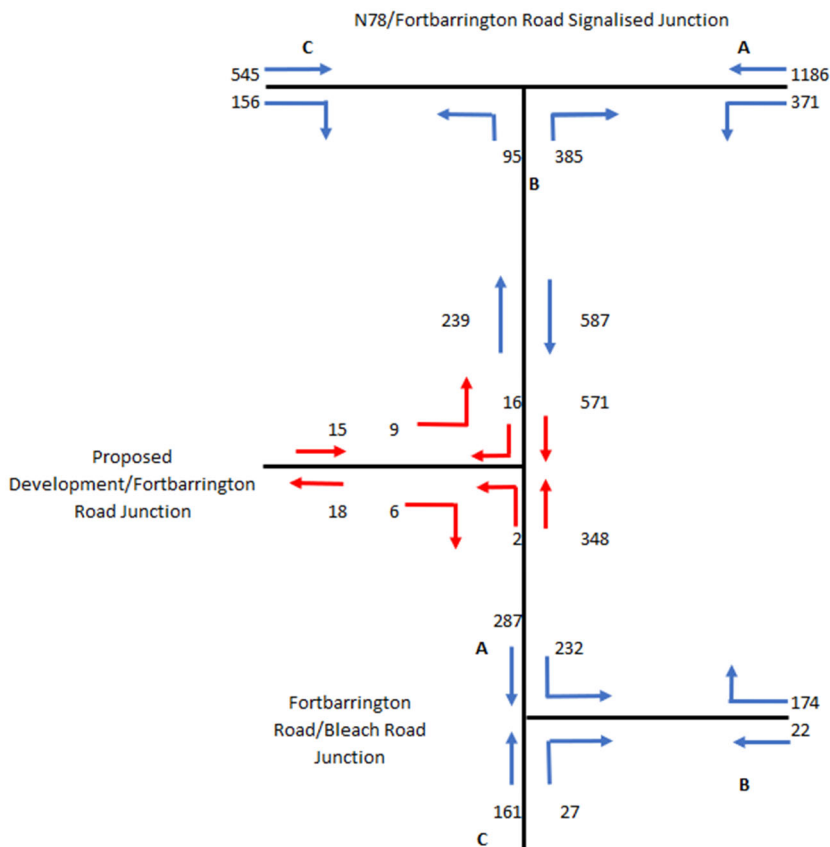


Figure 4-11 PM Peak Period Traffic Year 2040



## 5 IMPACT ASSESSMENT

### 5.1 N78/Fortbarrington Road Junction (signalised junction)

The results of the traffic modelling carried out on the N78/Fortbarrington Road Junction are shown in **Table 5.1** below. Detailed reports from the traffic modelling carried out are included in **Appendix B**.

**Table 5.1 N78/Fortbarrington Road Junction Traffic Modelling Results**

Stream	2021 Baseline AM		2021 Baseline PM		2025 Opening Year AM		2025 Opening Year PM		2030 AM		2030 PM		2040 AM		2040 PM		2040 PM (No Dev)	
	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ(PC)	DOS (%)	MMQ	DOS (%)	MMQ
A: N78 (E)	70.6 %	11	101.1 %	38	75.4 %	12	108.4 %	65	80.9 %	13	116.0 %	98	77.0 %	13	132.6 %	152	127.3 %	134
B: Fortbarrington Rd	70%	8	98.2%	12	77.8 %	10	106.9 %	19	83.3 %	11	114.2 %	26	95.6 %	16	124.4 %	53	130.3 %	59
C: N78 (W)	57.1 %	10	32.5%	5	60.5 %	11	34.7%	5	64.8 %	12	37.0%	6	95.8 %	30	65.6%	13	63.7%	12

The above traffic analysis results given by the traffic model indicates little difference in junction operation following the opening of the proposed development during the AM scenario. The maximum difference in queue length was 2PCU's from the baseline (existing) to the opening year of 2025. This is likely to also be as a result of the traffic growth on the road network as well as the proposed development. The DOS remains below the practical capacity of 90% up to the year 2030 and exceeds it slightly in the 2040 scenario. It is noted that the junction was modelled using minimum green times and is not represented of an "intelligent" traffic signal phasing where green times update based on the traffic volume so there could be a level of discrepancy in these results, however what is shown is a worst case scenario.

In the PM scenario the junction is operating over capacity in the existing scenario and continues to do so throughout the future years. To understand better the effects of the proposed development against the effects of future traffic growth on the road network, a separate model was carried excluding the traffic generated by the proposed development traffic. This model resulted in a difference of queuing over all the junction arms of 13PCU's for the worst case scenario, the 2040 PM, as shown in **Table 5.2** below. This accounted for 6% of the overall queuing at this junction and is not considered to be significant issue at the junction in comparison to the surrounding traffic growth on the road network.



**Table 5.2 N78/Fortbarrington Road Junction Traffic Modelling Results Without Proposed Development**

Stream	2021 Baseline AM		2021 Baseline PM		2025 Opening Year AM		2025 Opening Year PM		2030 AM		2030 PM		2040 AM		2040 PM		2040 PM (No Dev)	
	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ(PC)	DOS (%)	MMQ	DOS (%)	MMQ
A: N78 (E)	70.6 %	11	101.1 %	38	74.8 %	11.6	106.9 %	59.3	80.0 %	13.0	114.6 %	91.9	76.2 %	12.4	127.3 %	134.4	74.8 %	11.6
B: Fortbarrington Rd	70%	8	98.2%	12	74.2 %	8.9	103.7 %	15.7	79.4 %	10.0	111.5 %	23.0	91.6 %	13.2	130.3 %	59.4	74.2 %	8.9
C: N78 (W)	57.1 %	10	32.5%	5	60.4 %	10.6	34.4%	5.0	64.7 %	11.8	36.7%	5.4	95.6 %	29.3	63.7%	12.3	60.4 %	10.6

## 5.2 Fortbarrington Road/Bleach Road Junction (priority junction)

The results of the traffic modelling carried out on the Fortbarrington Road/Bleach Road Junction are shown in **Table 5.2** below. Similar to the N78/Fortbarrington Road Junction, this junction was analysed for scenarios including and without the traffic generated by the proposed development for comparison of traffic congestion. Detailed reports from the traffic modelling carried out are included in **Appendix B**.

**Table 5.2 Fortbarrington/Bleach Road Junction Traffic Modelling Results**

Stream	2021 Baseline AM		2021 Baseline PM		2025 Opening Year AM		2025 Opening Year PM		2030 AM		2030 PM		2040 AM		2040 PM	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-AC	0.44	1	0.30	0	0.47	1	0.32	0	0.51	1	0.35	1	0.54	1	0.63	2
C-AB	0.03	0	0.03	0	0.03	0	0.03	0	0.03	0	0.03	0	0.04	0	0.06	0

**Table 5.2 Fortbarrington/Bleach Road Junction Traffic Modelling Results Without Proposed Development**

Stream	2021 Baseline AM		2021 Baseline PM		2025 Opening Year AM		2025 Opening Year PM		2030 AM		2030 PM		2040 AM		2040 PM	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-AC	0.44	1	0.22	0	0.47	1	0.32	0	0.51	1	0.35	1	0.54	1	0.62	2
C-AB	0.03	0	0.03	0	0.03	0	0.03	0	0.03	0	0.03	0	0.04	0	0.06	0

The above traffic analysis results given by the traffic model indicates little difference in junction operation following the opening of the proposed development. No additional PCU was shown to be queuing following the opening of the proposed development in the AM scenarios. The largest RFC observed was 0.63 in the 2040 PM period including the proposed development and this reduced to 0.62 when the proposed development traffic was removed from the model. Queuing levels remained the same and all RFC values are below the maximum practical capacity RFC of 0.85, therefore there is not considered to be a negative effect on this junction as a result of the proposed development. RFC values and queuing numbers were almost identical at this junction when assessed without the proposed development traffic which indicates that the rise in RFC through the future years would occur due to general traffic growth on the surrounding road network.

### 5.3 Proposed Development/Fortbarrington Road Junction (priority junction)

The results of the traffic modelling carried out on the Proposed Development/Fortbarrington Road Junction are shown in **Table 5.3** below. Detailed reports from the traffic modelling carried out are included in **Appendix B**.

**Table 5.2 Proposed Development/Fortbarrington Road Junction Traffic Modelling Results**

Stream	2025 Opening Year AM		2025 Opening Year PM		2030 AM		2030 PM		2040 AM		2040 PM	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-AC	0.04	0	0.03	0	0.04	0	0.03	0	0.05	0	0.04	0
C-AB	0.00	0	0.03	0	0.00	0	0.03	0	0.00	0	0.03	0

The above traffic analysis results given by the traffic model indicates little effect on the flow of traffic along the Fortbarrington Road following the opening of the proposed development and the construction of the new access which will junction on to the Fortbarrington Road. The largest RFC observed was 0.05 in the 2040 AM period and is well below the maximum practical capacity of a junction RFC of 0.85, therefore there is not considered to be a negative effect on the Fortbarrington Road as a result of the proposed development and the construction of this new junction.

## REPORT

---

As this is a new junction following the opening of the proposed development, a comparison without the proposed development is not considered to be of value.



## 6 ROAD LAYOUT, PARKING AND VISIBILITY

### 6.1 Future External Roads

Kildare County Council (KCC) have committed to the development of a new Southern Distributor Road (SDR) which is due to commence construction in 2021. This SDR will run adjacent to the northern boundary of the proposed development site and will form a new signalised junction with the Fortbarrington Road. Modelling of this new road and junction has been carried out by AECOM and took cognisance of the surrounding land zoning type and future traffic generated by this, which included the proposed development. This modelling assisted the design of junctions with sufficient capacity along the SDR. A copy of the Athy Distributor Road Phase 3 – Traffic Modelling Report is included in **Appendix C**.

### 6.2 Proposed Internal Roads

The internal road network within the development will have a carriageway width of 5.5m and a minimum 1.8m footpath width in accordance with the guidance set out in DMURS. Corner radii will not be greater than 6m and will allow for the swept path of a 7.90m refuse truck and 8.68m fire engine.

### 6.3 Parking

Parking volume has been provided in accordance with Chapter 17 of the Kildare County Development Plan 2017-2023. Based on this guidance the following parking is required based on the unit type;

**Table 1.2 Development Type**

Unit Type	1 Bed	2 Bed	3 Bed	4 Bed	Total
Apartment/Duplex	27	3			30
House	8	48	42	10	108
				Total	138

This results in a combined requirement for 138 car parking spaces for this type of development. The proposed development includes a total of 142 parking spaces which is considered to be in accordance with and above the standard required.

### 6.4 Visibility

A visibility splay of 59m is required based on a speed limit of 60km/h in accordance with DMURS. Visibility splays in excess of this are achieved from the proposed development access to the surrounding road network once site clearance has been completed as shown on the drawing in **Appendix A**.

### 6.5 Road Safety Audit

The proposed design and its interaction with the surrounding road network has been audited by a team of Road Safety Auditors and amendments to the general arrangement based on this Road Safety Audit have been incorporated to the current proposed design. A copy of this Road Safety Audit is included in Appendix C.

## 7 CONCLUSION

The traffic impacts resulting from the proposed development was assessed in accordance with the TII Traffic and Transport Assessment Guidelines.

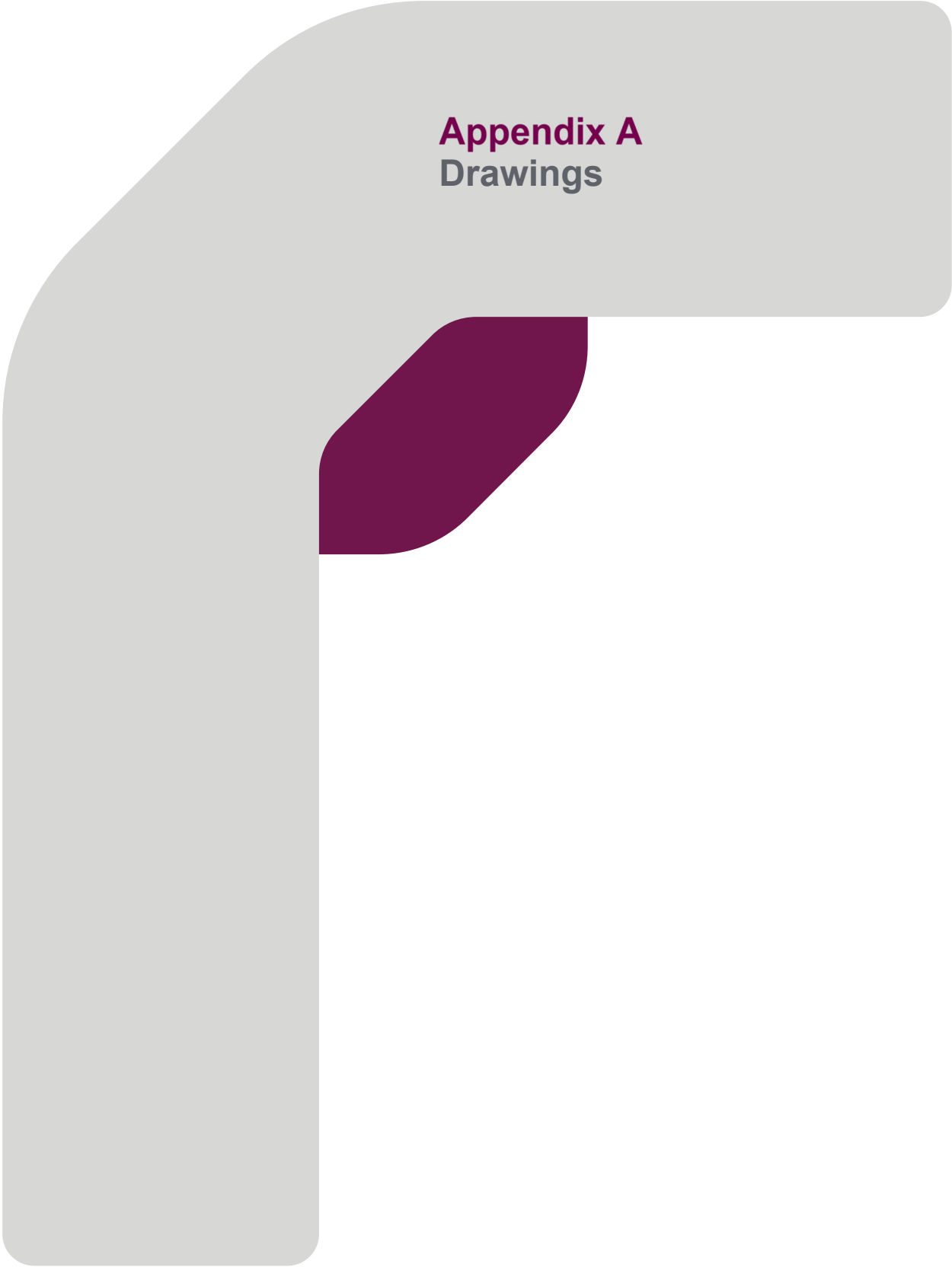
The traffic growth as a result of this development was calculated using TRICS and growth factors obtained from the TII Project Appraisal Guidelines Unit 5.5: Link Based Traffic Growth Forecasting were used to determine future traffic volumes on the surrounding road network.

The traffic impacts as a result of the proposed development are summarised as follows:

- The traffic impact at the junction of the N78/Fortbarrington Road caused by the proposed development is not considered to be significant and issues with queuing at this junction are present in the existing scenario and is exasperated by the growth on the surrounding road network when future traffic growth rates are applied.
- The traffic impact at the junction of the Fortbarrington/Bleach Road caused by the proposed development is minor and does not result in any queuing.
- The traffic impact on the Fortbarrington Road following the construction of and opening of the proposed development access road results in no queueing on the Fortbarrington Road and therefore has minimal impact on traffic.

There are good public transport links to Athy which are within reasonable walking distance along a well connected series of footpaths. This is likely to encourage a modal shift to more sustainable transport methods and could further reduce the traffic impact as a result of this development.

In conclusion and following this assessment, the construction of this proposed development will not have a negative impact on the surrounding road network. There are some issues with queuing at the N78/Fortbarrington Road junction in the existing scenario where the proposed development traffic has not been added to the surrounding road network and this queuing is likely to increase when future traffic growth rates are applied. Issues at this junction are not as a result of the proposed development.



## Appendix A Drawings

Proposed route of Athy Southern Distributor Road  
(not forming part of this application)

Part 8 Planning Application extends  
(2.43 Ha.)

LOCATION OF PLANNING NOTICE

Site at Fortbarrington Road,  
Athy, Co. Kildare  
OS Reference Index:

Map Series | Map Sheets

1:1000 | 4004-25

1:2500 | 4004-D

1:2500 | 4063-B

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Government of Ireland



Proposed future sports hub lands  
(not forming part of this application)

Proposed Andrew Halting Site expansion  
(not forming part of this application)

Existing Andrew Halting Site

LOCATION OF PLANNING NOTICE

Andrew Meadows  
Cluainte Ard  
Rua

Use figured dimensions only. Do not scale drawings. Read in conjunction with specification and consultants drawings. Report any discrepancies in drawings to Architect before putting work in hand. Check all dimensions on site. This drawing is the copy-right of Sean Harrington Architects, and may not be reproduced, in whole or part, without prior agreement.

REV	NOTES	DATE
01	Issued for client review	24/08/21
02	Issued to NDFA	14/09/21
03	Updated notes	18/11/21

**SEÁN HARRINGTON ARCHITECTS**

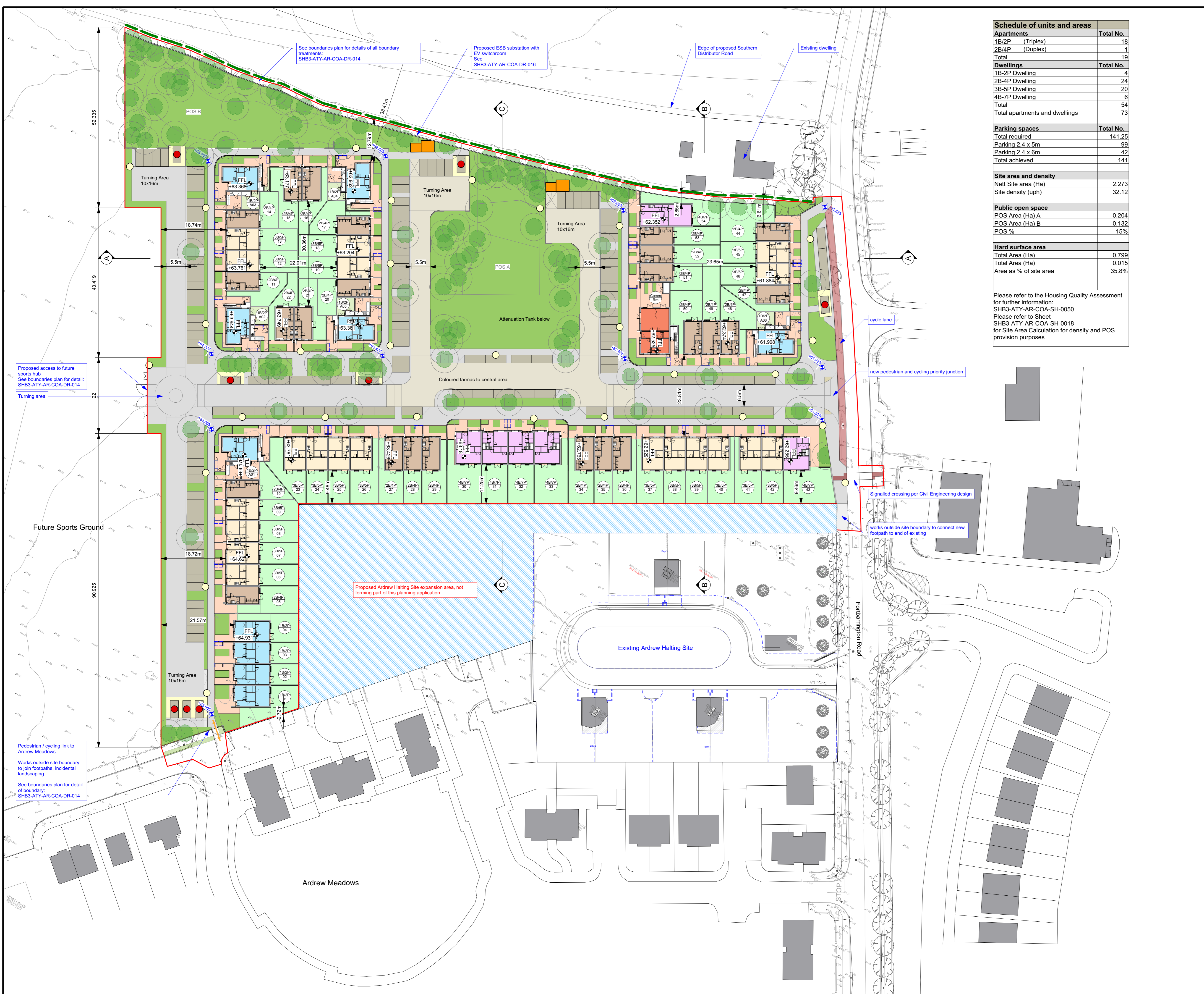
3rd Floor  
121/122 Capel Street  
Dublin 1, Ireland  
t 01 8733 422  
e info@sha.ie

PROJECT:  
Social Housing Bundle 3 - Residential Development at Fortbarrington Road, Athy  
CLIENT:  
Kildare County Council

DRAWING TITLE:  
**Site Location Map**

PROJECT STAGE: Stage 02B	SCALE: 1/1000	DATE: JUL'21	Project - Orig - Vol - Level - Type - Role - No.	REV NO.:
SUITABILITY CODE: S2	DRAWN BY: SM	CHECKED BY: RG	SHB3-ATY-AR-COA-DR-0001	03





Schedule of units and areas	
<b>Apartments</b>	
1B/2P (Triplex)	18
2B/4P (Duplex)	1
<b>Total</b>	<b>19</b>
<b>Dwellings</b>	
1B-2P Dwelling	4
2B-4P Dwelling	24
3B-5P Dwelling	20
4B-7P Dwelling	6
<b>Total</b>	<b>54</b>
<b>Total apartments and dwellings</b>	<b>73</b>
<b>Parking spaces</b>	
<b>Total required</b>	<b>141.25</b>
Parking 2.4 x 5m	99
Parking 2.4 x 6m	42
<b>Total achieved</b>	<b>141</b>
<b>Site area and density</b>	
Nett Site area (Ha)	2.273
Site density (upth)	32.12
<b>Public open space</b>	
POS Area (Ha) A	0.204
POS Area (Ha) B	0.132
<b>POS %</b>	<b>15%</b>
<b>Hard surface area</b>	
Total Area (Ha)	0.799
Total Area (Ha)	0.015
<b>Area as % of site area</b>	<b>35.8%</b>

Please refer to the Housing Quality Assessment for further information: SHB3-ATY-AR-COA-SH-0050  
 Please refer to Sheet SHB3-ATY-AR-COA-SH-0018 for Site Area Calculation for density and POS provision purposes

**Legend - Dwelling typologies**

- 1B/2P (1 Bed 2 Person) Dwelling Unit - Refer to Sheet SHB3-ATY-COA-DR-013 for plan / elevation drawings
- 1B/2P (1 Bed 2 Person) Triplex Unit - Refer to Sheet SHB3-ATY-COA-DR-0102 for plan / elevation drawings
- 2B/4P (2 Bed 4 Person) Dwelling Unit - Refer to Sheet SHB3-ATY-COA-DR-0101 for plan / elevation drawings
- 2B/4P (2 Bed 4 Person) Duplex Unit - Refer to Sheet SHB3-ATY-COA-DR-0103 for plan / elevation drawings
- 3B/5P (3 Bed 5 Person) Dwelling Unit - Refer to Sheet SHB3-ATY-COA-DR-0101 for plan / elevation drawings
- 4B/7P (4 Bed 7 Person) Dwelling Unit - Refer to Sheet SHB3-ATY-COA-DR-0101 for plan / elevation drawings
- Community Building - Refer to Sheet SHB3-ATY-COA-DR-0103 for plan / elevation drawings

**Legend - Site plan**

- Asphalt to carriageways generally
- Coloured asphalt to homezone carriageway
- Hard surfacing to private front courtyards - paving to landscape architect's detail
- Grassed rear gardens
- Soft landscaping - see Landscape Architecture plan for details of incidental / boundary planting / footpath verges / front curbside planting
- Carparking spaces
- Proposed ESB substation / switch room
- Public open space to landscape architect's detail.
- Finished Floor Level (where 1no. level is shown per terrace, this is consistent in each dwelling)
- Proposed Street / Road Level
- Proposed Tree
- Public Lighting Pole
- Accessible parking space
- Waste Bin Storage
- Existing Hedgerow to be retained
- Dwelling ID: No. of beds / Dwelling No.
- Part 8 Planning Application Extents (2.43 Ha)

For further information on planning, screening and social infrastructure, please refer to planning documentation prepared by McCabe Durney Barnes Associates.  
 For further information on landscaping, please refer to the landscape plan prepared by Mitchell + Associates.  
 For further information on road engineering and drainage, please refer to engineering documentation, prepared by RPS Consulting.  
 For further information on mechanical and electrical engineering, including CCTV, please refer to M+E documentation, prepared by Semple and McKillop.  
 For further information on ecological impact assessment, please refer to ecological documentation, prepared by NMEcology.  
 For further information on architectural design and details, please refer to the architectural design statement, prepared by SHA: SHB3-ATY-AR-COA-RP-001

REV	NOTES	DATE
05	General revisions	25/09/21
06	Annotations updated, RCC comments incorporated.	16/11/21
07	Minor amendments	24/11/21

**SEÁN HARRINGTON ARCHITECTS**  
 3rd Floor, 12/122 Capital Street, Dublin 1, Ireland | T: 01 8733 422 | E: info@sharrington.com

PROJECT: Social Housing Bundle 3 - Residential Development at Fortbarrington Road, Athy  
 CLIENT: Kildare County Council  
 DRAWING TITLE: Proposed Site Plan

PROJECT STAGE: Stage 02B	SCALE: 1:500	DATE: MAR'21	PROJECT: SHB3-ATY-AR-COA-DR-0011	REV: 07
DESIGNER: S2	DRAWN BY: SM	CHECKED BY: RB		





Indicative layout of proposed Athy Distributor Road which does not form part of this project. It is shown here for reference only

Cycle lane to terminate here. Extension past this location to be considered as part of the design for Athy Distributor Road junction with Fortbarrington Road

Cyclists traveling north can merge into proposed cycle lane

Signal controlled pedestrian crossing

Proposed footpath to tie into existing footpath and kerb line.

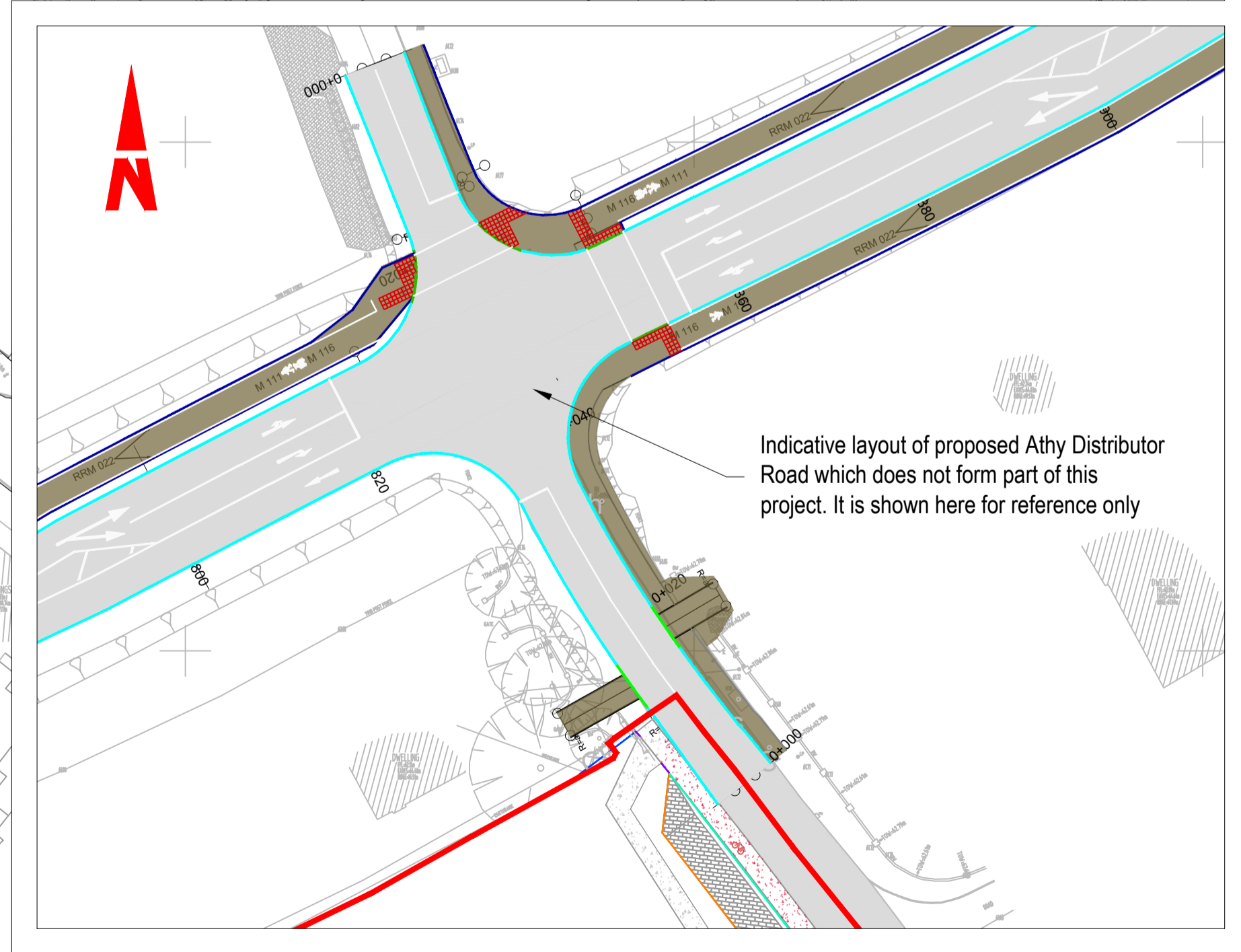
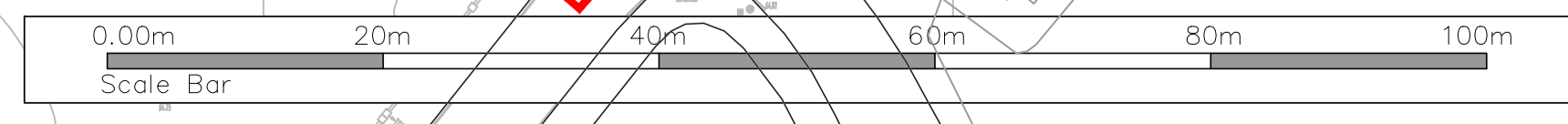
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  - (iv) Information including topographical survey, geotechnical investigation and utility detail used in the design have been provided by others.
  - (v) All Levels refer to Ordnance Survey Datum, Main Head.

- Pavement Specification:
1. Surface Course - Section 5 of Series 900 - SMA 10 / Surf/ PMB 65/105-60 - 40mm.
  2. Binder Course - Section 3 of Series 900 - AC 20 dense bin 40/60 - 60mm.
  3. Sub-base - 804 - Granular Material Type B - 150mm.
  4. Capping - 6F2 - 450mm (600mm if CBR<4% 300mm Min if CBR>4%).

- General Notes:
1. Precast concrete kerbs to be as detailed to CC-SCD-01101 (RCD/1100/1).
  2. Dropped kerbs at pedestrian crossings and pedestrian accesses are to be provided. At pedestrian crossings, the kerbs at dished crossing points are to be laid flush to the carriageway, or to a maximum upstand of 6mm.
  3. At crossings at the entry ramps, the crossing is to ramp down to the entry ramp level and be flush with the level of the entry ramp.
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  5. Concrete at footways shall be in accordance with Clause 1106 of TII Specification for Roadworks Series 1100, CC-SPW-01100. Concrete footways to receive a non-skid brush finish to the surface. The provision of tactile paving shall be buff coloured at uncontrolled crossing points as per requirements of the Traffic Management Guidelines.
  7. The dimples on the tactile paving units shall be aligned so as to guide visually impaired pedestrians directly across to the other side of the road, where the corresponding crossing point is located.
  8. All traffic signage and line marking shall be in accordance with the Traffic Signs Manual.
  9. Cycle lane design and layout shall be in accordance with the National Cycle Manual.

S:\MGC0712 - NDFA\_SHB3\MGC0712-04 - Athy\8.0 Drawings\KP\KP001 - Traffic Engineering Layout.dwg

LEGEND	
BOUNDARY OF AREA SUBJECT OF THIS APPLICATION	
ROADWAY	
FOOTWAY	
PERMEABLE PAVING / EXTERNAL HARD LANDSCAPING TO ARCHITECTS DETAILS	
BUFF COLOUR BLISTER TACTILE PAVING AT UNCONTROLLED CROSSING	
KERBING (100mm UPSTAND)	
BULLNOSE KERB	
KERBING (75mm UPSTAND)	
KERBING (25mm UPSTAND)	
KERBING (6mm UPSTAND)	
TRANSITION KERBING	
KERBING TBC	



Rev	Date	Chk	Amendment / Issue	App
P05	24.11.21	OK	Issue For planning	OK
P04	19.11.21	OK	Issue for LA Review	OK
P03	21.09.21	OK	Issue for LA Review	OK
P02	15.09.21	OK	Issue for Review	OK



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 W www.rpsgroup.com/ireland  
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Project: **SHB 3 ATHY, CO. KILDARE**

Title: **Traffic Engineering Layout**

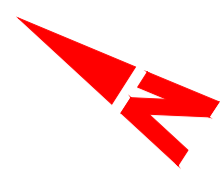
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File Identifier: **SHB3-ATY-CS-RPS-DR-KP001-01**

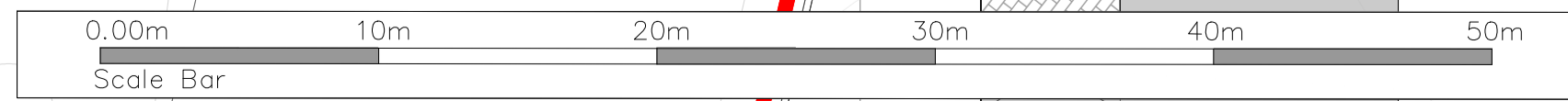
Created on: **July 2021** Sheets: **01 01**

Scale: **1:500 @ A1** Status: **S4** Rev: **P05**  
**1:1000 @ A3**





X - DISTANCE = 2m  
 Y - DISTANCE = 65m  
 BASED ON SPEED LIMIT OF 50KM/HR IN ACCORDANCE WITH DMURS  
 CONSTRAINT ON OVERTAKING - Y DISTANCE TO THE LEFT TAKEN TO CENTER LINE OF THE ROAD



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 8. All traffic signage and line marking shall be in accordance with the Traffic Signs Manual.  
 9. Cycle lane design and layout shall be in accordance with the National Cycle Manual.

Rev	Date	Chk	Amendment / Issue	App
P04	24.11.21	Os Dk	Issue for Planning	D+
P03	21.09.21	Os Dk	Issue for LA Review	D+
P02	15.09.21	Os Dk	Issue for review	D+
P01	18.08.21	Dm Dk	Issue for review	D+



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Project: SHB 3  
 ATHY, CO. KILDARE

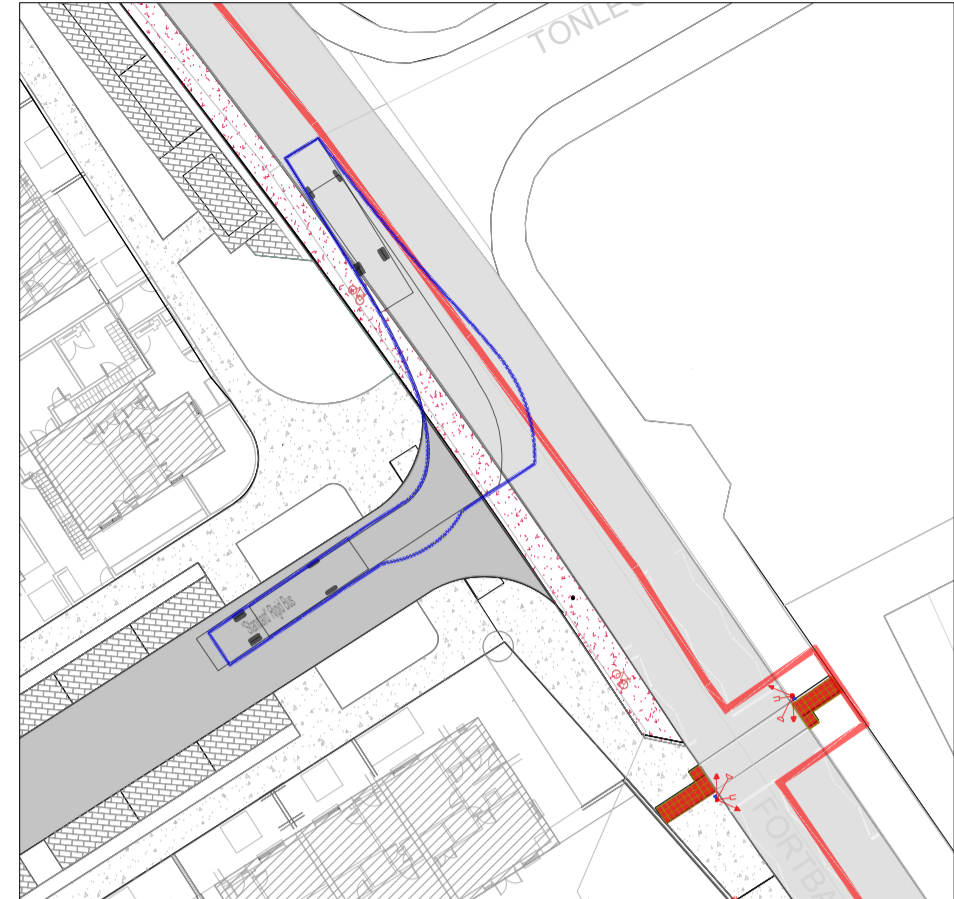
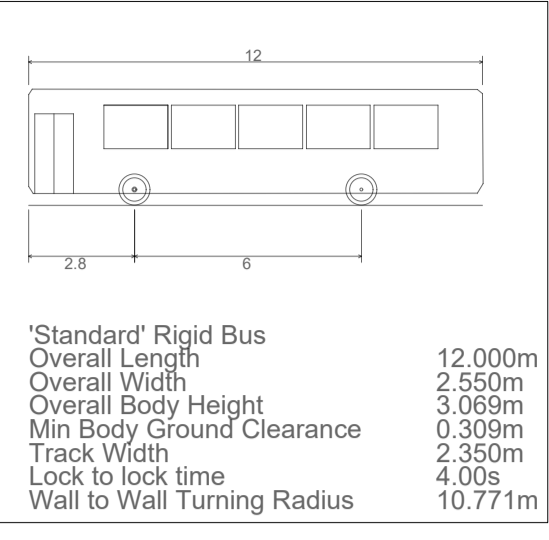
Title: Sightline Visibility Splay

Model File Identifier: SHB3-ATY-CS-RPS-DR-KP003

File Identifier: SHB3-ATY-CS-RPS-DR-KP003-01

Created on	August 2021	Sheets	01 OF 01
Scale	1:500 @ A1 1:1000 @ A3	Status	S4
		Rev	P04





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LEGEND

AUTO TRACKING - BUS	
AUTO TRACKING - REFUSE TRUCK	
AUTO TRACKING - FIRE TRUCK	
AUTO TRACKING - CAR	

Rev	Date	Chk	App	Amendment / Issue
P04	24.11.21	CS DK		Issue for Planning
P03	21.09.21	CS DK		Issue for LA Review
P02	15.09.21	CS DK		Issue for review
P01	18.08.21	CS DK		Issue for review



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 E ireland@rpsgroup.com

Project  
**SHB 3  
 ATHY, CO. KILDARE**

Title  
**Vehicle Tracking Layout  
 Bus**

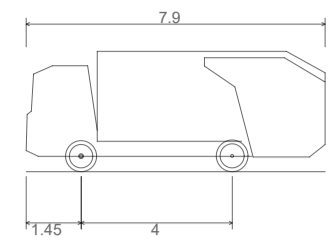
Model File Identifier  
**SHB3-ATY-CS-RPS-DR-KP004**

File Identifier  
**SHB3-ATY-CS-RPS-DR-KP004-01**

Created on August 2021	Sheets 01 OF 04
Scale 1:500 @ A1 1:1000 @ A3	Status S4
	Rev P04







DB32 Refuse Vehicle  
 Overall Length 7.90m  
 Overall Width 2.40m  
 Overall Body Height 3.18m  
 Min Body Ground Clearance 0.38m  
 Max Track Width 2.40m  
 Lock to lock time 6.00s



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 2. Binder Course - Section 3 of Series 900 - AC 20 dense bin 40/60 - 60mm.  
 3. Sub-base - 804 - Granular Material Type B - 150mm.  
 4. Capping - 6F2 - 450mm (600mm if CBR<4% 300mm Min if CBR>4%).

General Notes:  
 1. Precast concrete kerbs to be as detailed to CC-SCD-01101 (RCD/1100/1).  
 2. Dropped kerbs at pedestrian crossings and pedestrian accesses are to be provided. At pedestrian crossings, the kerbs at dished crossing points are to be laid flush to the carriageway, or to a maximum upstand of 6mm.  
 3. At crossings at the entry ramps, the crossing is to ramp down to the entry ramp level and be flush with the level of the entry ramp.  
 4. Where the provision of kerbing starts or terminates along the road, the kerbing shall be ramped up to the required height at a desirable slope of 1:20, or a maximum slope of 1:12.  
 5. Concrete at footways shall be in accordance with Clause 1106 of TII Specification for Roadworks Series 1100, CC-SPW-01100. Concrete footways to receive a non-skid brush finish to the surface.  
 6. The provision of tactile paving shall be buff coloured at uncontrolled crossing points as per requirements of the Traffic Management Guidelines.  
 7. The dimples on the tactile paving units shall be aligned so as to guide visually impaired pedestrians directly across to the other side of the road, where the corresponding crossing point is located.  
 8. All traffic signage and line marking shall be in accordance with the Traffic Signs Manual.  
 9. Cycle lane design and layout shall be in accordance with the National Cycle Manual.

LEGEND

AUTO TRACKING - BUS	
AUTO TRACKING - REFUSE TRUCK	
AUTO TRACKING - FIRE TRUCK	
AUTO TRACKING - CAR	

Rev	Date	Chk	Amendment / Issue	App
P04	24.11.21	CS DK	Issue for Planning	DK
P03	21.09.21	CS DK	Issue for LA Review	DK
P02	15.09.21	CS DK	Issue for review	DK
P01	18.08.21	CS DK	Issue for review	DK



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Project  
**SHB 3  
 ATHY, CO. KILDARE**

Title  
**Vehicle Tracking Layout  
 Refuse Truck**

Model File Identifier  
**SHB3-ATY-CS-RPS-DR-KP004**

File Identifier  
**SHB3-ATY-CS-RPS-DR-KP004-02**

Created on  
 August 2021

Sheets  
 02 OF 04

Scale  
 1:500 @ A1  
 1:1000 @ A3

Status  
**S4**

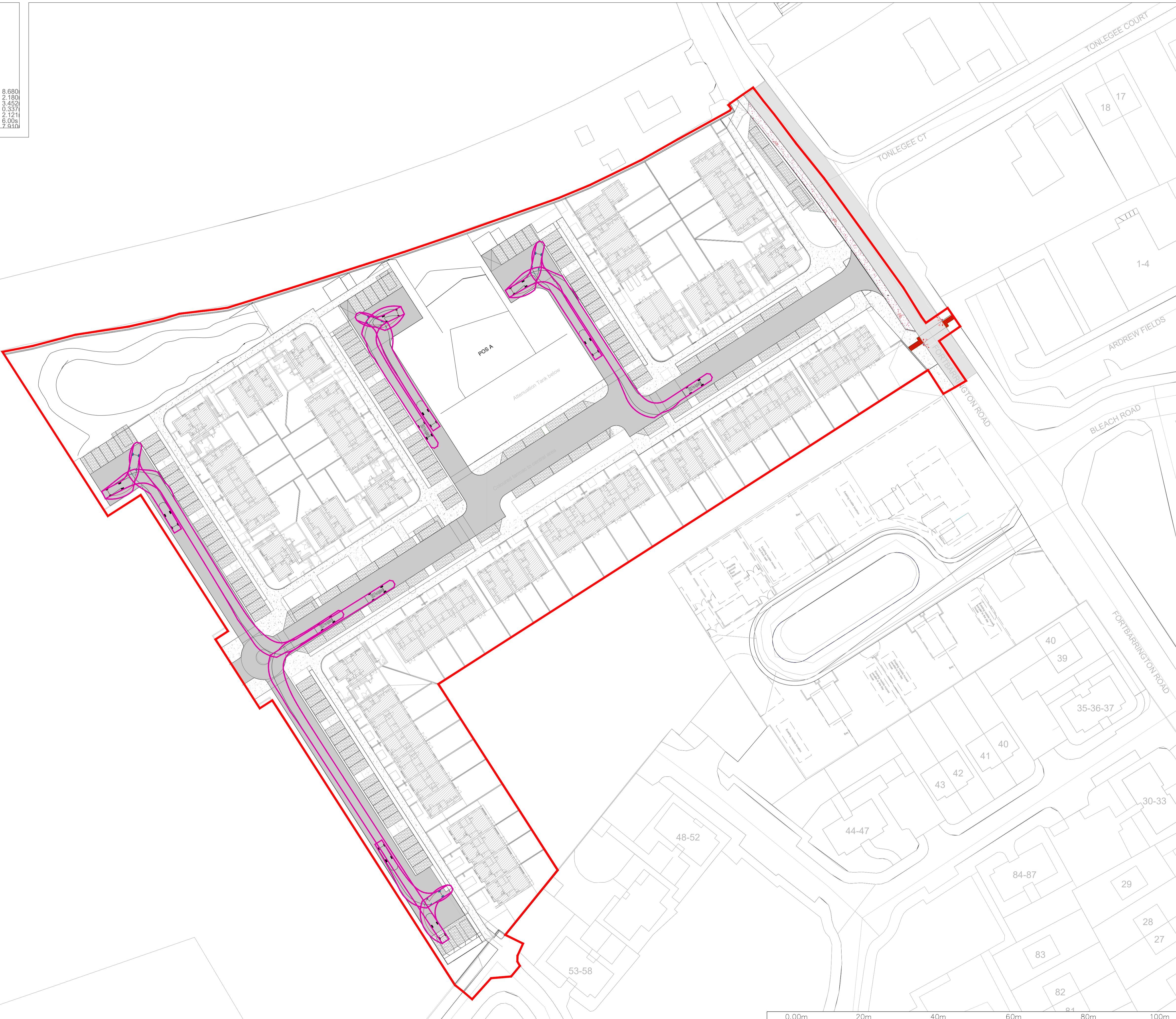
Rev  
**P04**



S:\MGC0712 - NDFA SHB3\MGC0712-04 - Athy\6.0 Drawings\KPKP004 - Vehicle Tracking Layout\SHB3-ATY-CS-RPS-DR-KP004 - VEHICLE TRACKING LAYOUT.dwg



DB32 Fire Appliance	8.680
Overall Length	2.180
Overall Width	3.452
Overall Body Height	0.337
Min Body Ground Clearance	2.121
Max Track Width	6.00s
Lock to lock time	7.91D
Kerb to Kerb Turning Radius	



- General Notes:
- (i) Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwg etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipient's own risk. RPS will not accept any responsibility for any errors from the use of these files, either by human error by the recipient, listing of the un-dimensioned measurements, compatibility with the recipient's software, and any errors arising when these files are used to aid the recipient's drawing production, or setting out on site.
  - (ii) DO NOT SCALE, use figured dimensions only.
  - (iii) This drawing is the property of RPS, it is a project confidential classified document. It must not be copied used or its contents divulged without prior written consent. The needs and expectations of client and RPS must be considered when working with this drawing.
  - (iv) Information including topographical survey, geotechnical investigation and utility detail used in the design have been provided by others.
  - (v) All Levels refer to Ordnance Survey Datum, Malin Head.

- Pavement Specification:
1. Surface Course - Section 5 of Series 900 - SMA 10 / Surf/ PMB 65/105-60 - 40mm.
  2. Binder Course - Section 3 of Series 900 - AC 20 dense bin 40/60 - 60mm.
  3. Sub-base - 804 - Granular Material Type B - 150mm.
  4. Capping - 6F2 - 450mm (600mm if CBR<4% 300mm Min if CBR>4%).

- General Notes:
1. Precast concrete kerbs to be as detailed to CC-SCD-01101 (RCD/1100/1).
  2. Dropped kerbs at pedestrian crossings and pedestrian accesses are to be provided. At pedestrian crossings, the kerbs at dished crossing points are to be laid flush to the carriageway, or to a maximum upstand of 6mm.
  3. At crossings at the entry ramps, the crossing is to ramp down to the entry ramp level and be flush with the level of the entry ramp.
  4. Where the provision of kerbing starts or terminates along the road, the kerbing shall be ramped up to the required height at a desirable slope of 1:20, or a maximum slope of 1:12.
  5. Concrete at footways shall be in accordance with Clause 1106 of TII Specification for Roadworks Series 1100, CC-SPW-01100. Concrete footways to receive a non-skid brush finish to the surface.
  6. The provision of tactile paving shall be buff coloured at uncontrolled crossing points as per requirements of the Traffic Management Guidelines.
  7. The dimples on the tactile paving units shall be aligned so as to guide visually impaired pedestrians directly across to the other side of the road, where the corresponding crossing point is located.
  8. All traffic signage and line marking shall be in accordance with the Traffic Signs Manual.
  9. Cycle lane design and layout shall be in accordance with the National Cycle Manual.

LEGEND	
AUTO TRACKING - BUS	
AUTO TRACKING - REFUSE TRUCK	
AUTO TRACKING - FIRE TRUCK	
AUTO TRACKING - CAR	

Rev	Date	Chk	Amendment / Issue	App
P04	24.11.21	CS/DK	Issue for Planning	D+
P03	21.09.21	CS/DK	Issue for LA Review	D+
P02	15.09.21	CS/DK	Issue for review	D+
P01	18.08.21	CS/PM/CS	Issue for review	D+



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Project: **SHB 3 ATHY, CO. KILDARE**

Title: **Vehicle Tracking Layout Fire Truck**

Model File Identifier: **SHB3-ATY-CS-RPS-DR-KP004**

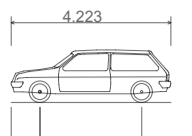
File Identifier: **SHB3-ATY-CS-RPS-DR-KP004-03**

Created on: August 2021 | Sheets: 03 OF 04

Scale: 1:500 @ A1 | Status: S4 | Rev: P04





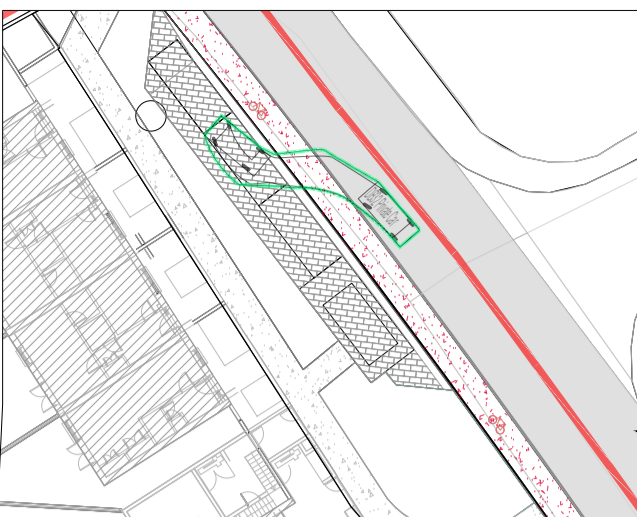
	
DB32 Private Car	
Overall Length	4.223m
Overall Width	1.715m
Overall Body Height	1.392m
Min Body Ground Clearance	0.233m
Max Track Width	1.629m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.780m



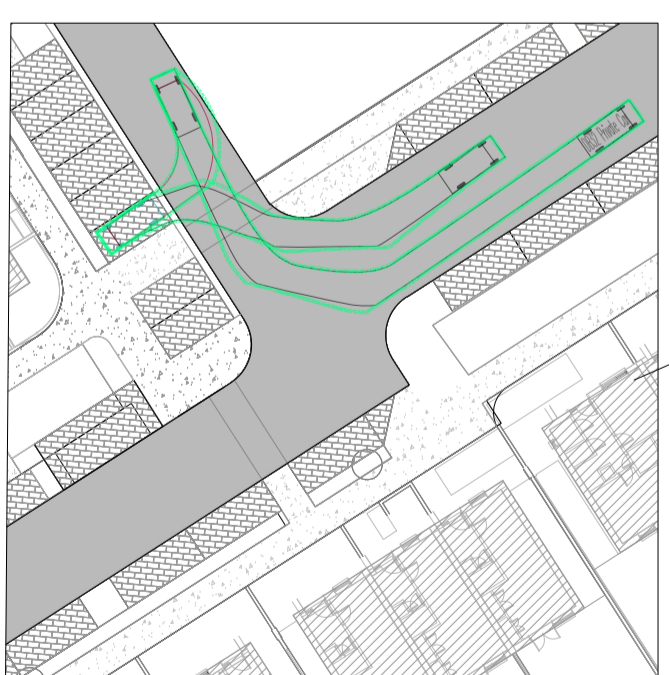
2nd AUTO TRACKING - CAR



2nd AUTO TRACKING - CAR



2nd AUTO TRACKING - CAR



2ND AUTO TRACKING - CAR







General Notes:

- (i) Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwg etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipient's own risk. RPS will not accept any responsibility for any errors from the use of these files, either by human error by the recipient, listing of the un-dimensioned measurements, compatibility with the recipient's software, and any errors arising when these files are used to aid the recipient's drawing production, or setting out on site. DO NOT SCALE, use figured dimensions only.
- (ii) This drawing is the property of RPS, it is a project confidential classified document. It must not be copied used or its contents divulged without prior written consent. The needs and expectations of client and RPS must be considered when working with this drawing.
- (iv) Information including topographical survey, geotechnical investigation and utility detail used in the design have been provided by others.
- (v) All Levels refer to Ordnance Survey Datum, Malin Head.

- Pavement Specification:
1. Surface Course - Section 5 of Series 900 - SMA 10 / Surf/ PMB 65/105-60 - 40mm.
  2. Binder Course - Section 3 of Series 900 - AC 20 dense bin 40/60 - 60mm.
  3. Sub-base - 804 - Granular Material Type B - 150mm.
  4. Capping - 6F2 - 450mm (600mm if CBR<4% 300mm Min if CBR>4%).

- General Notes:
1. Precast concrete kerbs to be as detailed to CC-SCD-01101 (RCD/1100/1).
  2. Dropped kerbs at pedestrian crossings and pedestrian accesses are to be provided. At pedestrian crossings, the kerbs at dished crossing points are to be laid flush to the carriageway, or to a maximum upstand of 6mm.
  3. At crossings at the entry ramps, the crossing is to ramp down to the entry ramp level and be flush with the level of the entry ramp.
  4. Where the provision of kerbing starts or terminates along the road, the kerbing shall be ramped up to the required height at a desirable slope of 1:20, or a maximum slope of 1:12.
  5. Concrete at footways shall be in accordance with Clause 1106 of TII Specification for Roadworks Series 1100, CC-SPW-01100. Concrete footways to receive a non-skid brush finish to the surface. The provision of tactile paving shall be buff coloured at uncontrolled crossing points as per requirements of the Traffic Management Guidelines.
  7. The dimples on the tactile paving units shall be aligned so as to guide visually impaired pedestrians directly across to the other side of the road, where the corresponding crossing point is located.
  8. All traffic signage and line marking shall be in accordance with the Traffic Signs Manual.
  9. Cycle lane design and layout shall be in accordance with the National Cycle Manual.

LEGEND

AUTO TRACKING - BUS	
AUTO TRACKING - REFUSE TRUCK	
AUTO TRACKING - FIRE TRUCK	
AUTO TRACKING - CAR	

Rev	Date	Chk	App	Amendment / Issue
P04	24.11.21	OS/DK		Issue for Planning
P03	21.09.21	OS/DK		Issue for LA Review
P02	15.09.21	OS/DK		Issue for review
P01	18.08.21	OS/PM/CA		Issue for review



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Project: SHB 3  
 ATHY, CO. KILDARE

Title: Vehicle Tracking Layout  
 Private Car

Model File Identifier: SHB3-ATY-CS-RPS-DR-KP004

File Identifier: SHB3-ATY-CS-RPS-DR-KP004-04

Created on: August 2021  
 Sheets: 04 OF 04

Scale: 1:500 @ A1  
 1:1000 @ A3  
 Status: S4  
 Rev: P04





## Appendix B Traffic Modelling Reports



Junctions 8
PICADY 8 - Priority Intersection Module
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2021
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**Filename:** Fortbarrington Road-Bleach Road Existing AM.arc8  
**Path:** C:\Users\mark.finnegan\Desktop  
**Report generation date:** 18/08/2021 11:48:44

- « (Default Analysis Set) - Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.78	15.53	0.44	C
Stream C-AB	0.03	6.23	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 18/08/2021 11:48:44

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	14.71	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	153.00	100.000
B	ONE HOUR	✓	167.00	100.000
C	ONE HOUR	✓	115.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

	To			
	A	B	C	
From	A	0.000	79.000	74.000
	B	144.000	0.000	23.000
	C	99.000	16.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.52	0.48
	B	0.86	0.00	0.14
	C	0.86	0.14	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.44	15.53	0.78	C
C-AB	0.03	6.23	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	125.73	124.09	0.00	427.79	0.294	0.41	11.793	B
C-AB	12.08	11.99	0.00	606.50	0.020	0.02	6.055	A
C-A	74.50	74.50	0.00	-	-	-	-	-
A-B	59.48	59.48	0.00	-	-	-	-	-
A-C	55.71	55.71	0.00	-	-	-	-	-



**Main results: (08:00-08:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	150.13	149.61	0.00	422.63	0.355	0.54	13.158	B
C-AB	14.43	14.42	0.00	601.82	0.024	0.02	6.128	A
C-A	88.95	88.95	0.00	-	-	-	-	-
A-B	71.02	71.02	0.00	-	-	-	-	-
A-C	66.52	66.52	0.00	-	-	-	-	-

**Main results: (08:15-08:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	183.87	182.94	0.00	415.51	0.443	0.77	15.411	C
C-AB	17.71	17.69	0.00	595.49	0.030	0.03	6.230	A
C-A	108.90	108.90	0.00	-	-	-	-	-
A-B	86.98	86.98	0.00	-	-	-	-	-
A-C	81.48	81.48	0.00	-	-	-	-	-

**Main results: (08:30-08:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	183.87	183.83	0.00	415.50	0.443	0.78	15.531	C
C-AB	17.71	17.71	0.00	595.49	0.030	0.03	6.230	A
C-A	108.90	108.90	0.00	-	-	-	-	-
A-B	86.98	86.98	0.00	-	-	-	-	-
A-C	81.48	81.48	0.00	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	150.13	151.01	0.00	422.62	0.355	0.56	13.299	B
C-AB	14.43	14.46	0.00	601.82	0.024	0.02	6.128	A
C-A	88.95	88.95	0.00	-	-	-	-	-
A-B	71.02	71.02	0.00	-	-	-	-	-
A-C	66.52	66.52	0.00	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	125.73	126.28	0.00	427.77	0.294	0.42	11.965	B
C-AB	12.08	12.09	0.00	606.50	0.020	0.02	6.058	A
C-A	74.50	74.50	0.00	-	-	-	-	-
A-B	59.48	59.48	0.00	-	-	-	-	-
A-C	55.71	55.71	0.00	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
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**Filename:** Fortbarrington Road-Bleach Road Existing PM.arc8

**Path:** C:\Users\mark.finnegan\Desktop

**Report generation date:** 16/09/2021 08:34:32

« (Default Analysis Set) - Scenario 1, PM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.43	13.14	0.30	B
Stream C-AB	0.03	6.59	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 16/09/2021 08:34:32

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, PM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, PM	Scenario 1	PM		ONE HOUR	16:45	18:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	12.34	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	283.00	100.000
B	ONE HOUR	✓	108.00	100.000
C	ONE HOUR	✓	103.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	128.000	155.000
	B	96.000	0.000	12.000
	C	88.000	15.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.45	0.55
	B	0.89	0.00	0.11
	C	0.85	0.15	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.30	13.14	0.43	B
C-AB	0.03	6.59	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	81.31	80.34	0.00	411.37	0.198	0.24	10.844	B
C-AB	11.32	11.24	0.00	583.98	0.019	0.02	6.285	A
C-A	66.23	66.23	0.00	-	-	-	-	-
A-B	96.37	96.37	0.00	-	-	-	-	-
A-C	116.69	116.69	0.00	-	-	-	-	-



**Main results: (17:00-17:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	97.09	96.81	0.00	403.59	0.241	0.31	11.724	B
C-AB	13.53	13.51	0.00	574.92	0.024	0.02	6.411	A
C-A	79.07	79.07	0.00	-	-	-	-	-
A-B	115.07	115.07	0.00	-	-	-	-	-
A-C	139.34	139.34	0.00	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	118.91	118.45	0.00	392.84	0.303	0.43	13.097	B
C-AB	16.60	16.57	0.00	562.53	0.030	0.03	6.593	A
C-A	96.81	96.81	0.00	-	-	-	-	-
A-B	140.93	140.93	0.00	-	-	-	-	-
A-C	170.66	170.66	0.00	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	118.91	118.89	0.00	392.83	0.303	0.43	13.139	B
C-AB	16.60	16.60	0.00	562.53	0.030	0.03	6.593	A
C-A	96.81	96.81	0.00	-	-	-	-	-
A-B	140.93	140.93	0.00	-	-	-	-	-
A-C	170.66	170.66	0.00	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	97.09	97.52	0.00	403.58	0.241	0.32	11.781	B
C-AB	13.53	13.55	0.00	574.92	0.024	0.02	6.414	A
C-A	79.07	79.07	0.00	-	-	-	-	-
A-B	115.07	115.07	0.00	-	-	-	-	-
A-C	139.34	139.34	0.00	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	81.31	81.60	0.00	411.35	0.198	0.25	10.928	B
C-AB	11.32	11.34	0.00	583.98	0.019	0.02	6.286	A
C-A	66.23	66.23	0.00	-	-	-	-	-
A-B	96.37	96.37	0.00	-	-	-	-	-
A-C	116.69	116.69	0.00	-	-	-	-	-

<b>Junctions 8</b>
<b>PICADY 8 - Priority Intersection Module</b>
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2021
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**Filename:** Fortbarrington Road-Bleach Road Opening Year 2025 AM.arc8

**Path:** S:\MGC0712 - NDFA SHB3\MGC0712-04 - Athy\5.0 Reports\Reports\SHB3-ATY-CS-RPS-RP-002 Traffic and Transport Assessment\Traffic Modelling

**Report generation date:** 10/09/2021 09:06:25

« **(Default Analysis Set) - Scenario 1, AM**

- » **Junction Network**
- » **Arms**
- » **Traffic Flows**
- » **Entry Flows**
- » **Turning Proportions**
- » **Vehicle Mix**
- » **Results**

**Summary of junction performance**

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.87	16.49	0.47	C
Stream C-AB	0.03	6.27	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 10/09/2021 09:06:25

## File summary

Title	(untitled)
Location	
Site Number	
Date	18/08/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	mark.finnegan
Description	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	15.58	C

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

# Traffic Flows

## Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	165.00	100.000
B	ONE HOUR	✓	176.00	100.000
C	ONE HOUR	✓	123.00	100.000

# Turning Proportions

## Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	81.000	84.000
	B	152.000	0.000	24.000
	C	106.000	17.000	0.000

## Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.49	0.51
	B	0.86	0.00	0.14
	C	0.86	0.14	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.47	16.49	0.87	C
C-AB	0.03	6.27	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-



## Main Results for each time segment

### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	132.50	130.73	0.00	425.30	0.312	0.44	12.150	B
C-AB	12.83	12.75	0.00	604.57	0.021	0.02	6.083	A
C-A	79.77	79.77	0.00	-	-	-	-	-
A-B	60.98	60.98	0.00	-	-	-	-	-
A-C	63.24	63.24	0.00	-	-	-	-	-

### Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	158.22	157.63	0.00	419.68	0.377	0.59	13.715	B
C-AB	15.34	15.33	0.00	599.55	0.026	0.03	6.161	A
C-A	95.23	95.23	0.00	-	-	-	-	-
A-B	72.82	72.82	0.00	-	-	-	-	-
A-C	75.51	75.51	0.00	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	193.78	192.70	0.00	411.93	0.470	0.86	16.336	C
C-AB	18.83	18.81	0.00	592.78	0.032	0.03	6.271	A
C-A	116.59	116.59	0.00	-	-	-	-	-
A-B	89.18	89.18	0.00	-	-	-	-	-
A-C	92.49	92.49	0.00	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	193.78	193.73	0.00	411.92	0.470	0.87	16.488	C
C-AB	18.83	18.83	0.00	592.78	0.032	0.03	6.271	A
C-A	116.59	116.59	0.00	-	-	-	-	-
A-B	89.18	89.18	0.00	-	-	-	-	-
A-C	92.49	92.49	0.00	-	-	-	-	-

### Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	158.22	159.24	0.00	419.67	0.377	0.62	13.879	B
C-AB	15.34	15.37	0.00	599.55	0.026	0.03	6.164	A
C-A	95.23	95.23	0.00	-	-	-	-	-
A-B	72.82	72.82	0.00	-	-	-	-	-
A-C	75.51	75.51	0.00	-	-	-	-	-

### Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	132.50	133.13	0.00	425.27	0.312	0.46	12.352	B
C-AB	12.83	12.85	0.00	604.57	0.021	0.02	6.085	A
C-A	79.77	79.77	0.00	-	-	-	-	-
A-B	60.98	60.98	0.00	-	-	-	-	-
A-C	63.24	63.24	0.00	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
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**Filename:** Fortbarrington Road-Bleach Road 2030 AM.arc8  
**Path:** C:\Users\mark.finnegan\Desktop  
**Report generation date:** 18/08/2021 12:02:17

- « (Default Analysis Set) - Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	1.01	17.83	0.51	C
Stream C-AB	0.04	6.31	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 18/08/2021 12:02:16

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	16.82	C

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	176.00	100.000
B	ONE HOUR	✓	189.00	100.000
C	ONE HOUR	✓	131.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	90.000	86.000
	B	163.000	0.000	26.000
	C	113.000	18.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.51	0.49
	B	0.86	0.00	0.14
	C	0.86	0.14	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.51	17.83	1.01	C
C-AB	0.03	6.31	0.04	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	142.29	140.31	0.00	423.86	0.336	0.49	12.612	B
C-AB	13.59	13.50	0.00	602.83	0.023	0.02	6.108	A
C-A	85.03	85.03	0.00	-	-	-	-	-
A-B	67.76	67.76	0.00	-	-	-	-	-
A-C	64.75	64.75	0.00	-	-	-	-	-

**Main results: (08:00-08:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	169.91	169.21	0.00	417.94	0.407	0.67	14.431	B
C-AB	16.26	16.24	0.00	597.51	0.027	0.03	6.192	A
C-A	101.51	101.51	0.00	-	-	-	-	-
A-B	80.91	80.91	0.00	-	-	-	-	-
A-C	77.31	77.31	0.00	-	-	-	-	-

**Main results: (08:15-08:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	208.09	206.79	0.00	409.76	0.508	0.99	17.615	C
C-AB	19.96	19.93	0.00	590.35	0.034	0.03	6.310	A
C-A	124.27	124.27	0.00	-	-	-	-	-
A-B	99.09	99.09	0.00	-	-	-	-	-
A-C	94.69	94.69	0.00	-	-	-	-	-

**Main results: (08:30-08:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	208.09	208.02	0.00	409.75	0.508	1.01	17.830	C
C-AB	19.96	19.96	0.00	590.35	0.034	0.04	6.310	A
C-A	124.27	124.27	0.00	-	-	-	-	-
A-B	99.09	99.09	0.00	-	-	-	-	-
A-C	94.69	94.69	0.00	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	169.91	171.15	0.00	417.92	0.407	0.70	14.660	B
C-AB	16.26	16.28	0.00	597.51	0.027	0.03	6.193	A
C-A	101.51	101.51	0.00	-	-	-	-	-
A-B	80.91	80.91	0.00	-	-	-	-	-
A-C	77.31	77.31	0.00	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	142.29	143.04	0.00	423.84	0.336	0.52	12.854	B
C-AB	13.59	13.61	0.00	602.83	0.023	0.02	6.111	A
C-A	85.03	85.03	0.00	-	-	-	-	-
A-B	67.76	67.76	0.00	-	-	-	-	-
A-C	64.75	64.75	0.00	-	-	-	-	-



<h1>Junctions 8</h1>
<h2>PICADY 8 - Priority Intersection Module</h2>
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**Filename:** Fortbarrington Road-Bleach Road 2040 AM.arc8

**Path:** S:\MGC0712 - NDFA SHB3\MGC0712-04 - Athy\5.0 Reports\Reports\SHB3-ATY-CS-RPS-RP-002 Traffic and Transport Assessment\Traffic Modelling

**Report generation date:** 10/09/2021 09:25:47

« (Default Analysis Set) - Scenario 1, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

**Summary of junction performance**

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	1.13	18.99	0.54	C
Stream C-AB	0.04	6.34	0.04	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 10/09/2021 09:25:47

## File summary

Title	(untitled)
Location	
Site Number	
Date	18/08/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	mark.finnegan
Description	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	17.88	C

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

# Traffic Flows

## Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	185.00	100.000
B	ONE HOUR	✓	198.00	100.000
C	ONE HOUR	✓	138.00	100.000

# Turning Proportions

## Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	94.000	91.000
	B	171.000	0.000	27.000
	C	119.000	19.000	0.000

## Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.51	0.49
	B	0.86	0.00	0.14
	C	0.86	0.14	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.54	18.99	1.13	C
C-AB	0.04	6.34	0.04	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

## Main Results for each time segment

### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	149.06	146.93	0.00	422.08	0.353	0.53	12.986	B
C-AB	14.36	14.26	0.00	601.42	0.024	0.02	6.131	A
C-A	89.54	89.54	0.00	-	-	-	-	-
A-B	70.77	70.77	0.00	-	-	-	-	-
A-C	68.51	68.51	0.00	-	-	-	-	-

### Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	178.00	177.22	0.00	415.83	0.428	0.73	15.035	C
C-AB	17.17	17.15	0.00	595.87	0.029	0.03	6.220	A
C-A	106.89	106.89	0.00	-	-	-	-	-
A-B	84.50	84.50	0.00	-	-	-	-	-
A-C	81.81	81.81	0.00	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	218.00	216.49	0.00	407.21	0.535	1.11	18.720	C
C-AB	21.09	21.06	0.00	588.41	0.036	0.04	6.344	A
C-A	130.85	130.85	0.00	-	-	-	-	-
A-B	103.50	103.50	0.00	-	-	-	-	-
A-C	100.19	100.19	0.00	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	218.00	217.91	0.00	407.20	0.535	1.13	18.994	C
C-AB	21.09	21.09	0.00	588.41	0.036	0.04	6.344	A
C-A	130.85	130.85	0.00	-	-	-	-	-
A-B	103.50	103.50	0.00	-	-	-	-	-
A-C	100.19	100.19	0.00	-	-	-	-	-

### Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	178.00	179.43	0.00	415.82	0.428	0.77	15.320	C
C-AB	17.17	17.20	0.00	595.87	0.029	0.03	6.220	A
C-A	106.89	106.89	0.00	-	-	-	-	-
A-B	84.50	84.50	0.00	-	-	-	-	-
A-C	81.81	81.81	0.00	-	-	-	-	-

### Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	149.06	149.91	0.00	422.05	0.353	0.56	13.272	B
C-AB	14.36	14.38	0.00	601.42	0.024	0.02	6.134	A
C-A	89.54	89.54	0.00	-	-	-	-	-
A-B	70.77	70.77	0.00	-	-	-	-	-
A-C	68.51	68.51	0.00	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
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**Filename:** Fortbarrington Road-Bleach Road Opening Year 2025 AM WO Dev.arc8

**Path:** C:\Users\mark.finnegan\Desktop

**Report generation date:** 10/09/2021 09:03:38

« (Default Analysis Set) - Scenario 1, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

**Summary of junction performance**

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.87	16.46	0.47	C
Stream C-AB	0.03	6.26	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 10/09/2021 09:03:38

**File summary**

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	



## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	15.56	C

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	162.00	100.000
B	ONE HOUR	✓	176.00	100.000
C	ONE HOUR	✓	122.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	78.000	84.000
	B	152.000	0.000	24.000
	C	105.000	17.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.48	0.52
	B	0.86	0.00	0.14
	C	0.86	0.14	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.47	16.46	0.87	C
C-AB	0.03	6.26	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	132.50	130.73	0.00	425.56	0.311	0.44	12.139	B
C-AB	12.83	12.75	0.00	605.08	0.021	0.02	6.077	A
C-A	79.01	79.01	0.00	-	-	-	-	-
A-B	58.72	58.72	0.00	-	-	-	-	-
A-C	63.24	63.24	0.00	-	-	-	-	-

**Main results: (08:00-08:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	158.22	157.63	0.00	419.99	0.377	0.59	13.690	B
C-AB	15.34	15.33	0.00	600.15	0.026	0.03	6.155	A
C-A	94.33	94.33	0.00	-	-	-	-	-
A-B	70.12	70.12	0.00	-	-	-	-	-
A-C	75.51	75.51	0.00	-	-	-	-	-

**Main results: (08:15-08:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	193.78	192.71	0.00	412.30	0.470	0.86	16.310	C
C-AB	18.83	18.81	0.00	593.51	0.032	0.03	6.263	A
C-A	115.49	115.49	0.00	-	-	-	-	-
A-B	85.88	85.88	0.00	-	-	-	-	-
A-C	92.49	92.49	0.00	-	-	-	-	-

**Main results: (08:30-08:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	193.78	193.73	0.00	412.29	0.470	0.87	16.460	C
C-AB	18.83	18.83	0.00	593.51	0.032	0.03	6.263	A
C-A	115.49	115.49	0.00	-	-	-	-	-
A-B	85.88	85.88	0.00	-	-	-	-	-
A-C	92.49	92.49	0.00	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	158.22	159.24	0.00	419.97	0.377	0.62	13.863	B
C-AB	15.34	15.37	0.00	600.15	0.026	0.03	6.158	A
C-A	94.33	94.33	0.00	-	-	-	-	-
A-B	70.12	70.12	0.00	-	-	-	-	-
A-C	75.51	75.51	0.00	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	132.50	133.13	0.00	425.53	0.311	0.46	12.341	B
C-AB	12.83	12.85	0.00	605.08	0.021	0.02	6.080	A
C-A	79.01	79.01	0.00	-	-	-	-	-
A-B	58.72	58.72	0.00	-	-	-	-	-
A-C	63.24	63.24	0.00	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
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**Filename:** Fortbarrington Road-Bleach Road 2030 AM WO Dev.arc8  
**Path:** C:\Users\mark.finnegan\Desktop  
**Report generation date:** 10/09/2021 09:11:12

- « (Default Analysis Set) - Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	1.01	17.78	0.51	C
Stream C-AB	0.04	6.30	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 10/09/2021 09:11:12

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	16.78	C

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	174.00	100.000
B	ONE HOUR	✓	189.00	100.000
C	ONE HOUR	✓	130.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	90.000	84.000
	B	163.000	0.000	26.000
	C	112.000	18.000	0.000



### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.52	0.48
	B	0.86	0.00	0.14
	C	0.86	0.14	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.51	17.78	1.01	C
C-AB	0.03	6.30	0.04	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	142.29	140.31	0.00	424.24	0.335	0.49	12.595	B
C-AB	13.59	13.50	0.00	603.16	0.023	0.02	6.105	A
C-A	84.28	84.28	0.00	-	-	-	-	-
A-B	67.76	67.76	0.00	-	-	-	-	-
A-C	63.24	63.24	0.00	-	-	-	-	-

**Main results: (08:00-08:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	169.91	169.22	0.00	418.38	0.406	0.67	14.405	B
C-AB	16.26	16.24	0.00	597.90	0.027	0.03	6.188	A
C-A	100.61	100.61	0.00	-	-	-	-	-
A-B	80.91	80.91	0.00	-	-	-	-	-
A-C	75.51	75.51	0.00	-	-	-	-	-

**Main results: (08:15-08:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	208.09	206.79	0.00	410.30	0.507	0.99	17.569	C
C-AB	19.96	19.93	0.00	590.82	0.034	0.03	6.305	A
C-A	123.17	123.17	0.00	-	-	-	-	-
A-B	99.09	99.09	0.00	-	-	-	-	-
A-C	92.49	92.49	0.00	-	-	-	-	-

**Main results: (08:30-08:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	208.09	208.02	0.00	410.30	0.507	1.01	17.780	C
C-AB	19.96	19.96	0.00	590.82	0.034	0.04	6.305	A
C-A	123.17	123.17	0.00	-	-	-	-	-
A-B	99.09	99.09	0.00	-	-	-	-	-
A-C	92.49	92.49	0.00	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	169.91	171.14	0.00	418.37	0.406	0.70	14.633	B
C-AB	16.26	16.28	0.00	597.90	0.027	0.03	6.191	A
C-A	100.61	100.61	0.00	-	-	-	-	-
A-B	80.91	80.91	0.00	-	-	-	-	-
A-C	75.51	75.51	0.00	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	142.29	143.03	0.00	424.21	0.335	0.51	12.837	B
C-AB	13.59	13.61	0.00	603.16	0.023	0.02	6.105	A
C-A	84.28	84.28	0.00	-	-	-	-	-
A-B	67.76	67.76	0.00	-	-	-	-	-
A-C	63.24	63.24	0.00	-	-	-	-	-

Junctions 8
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**Filename:** Fortbarrington Road-Bleach Road 2040 AM WO Dev.arc8  
**Path:** C:\Users\mark.finnegan\Desktop  
**Report generation date:** 10/09/2021 09:20:03

- « (Default Analysis Set) - Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	1.13	18.99	0.54	C
Stream C-AB	0.04	6.34	0.04	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 10/09/2021 09:20:03

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	17.88	C

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	185.00	100.000
B	ONE HOUR	✓	198.00	100.000
C	ONE HOUR	✓	138.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	94.000	91.000
	B	171.000	0.000	27.000
	C	119.000	19.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.51	0.49
	B	0.86	0.00	0.14
	C	0.86	0.14	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.54	18.99	1.13	C
C-AB	0.04	6.34	0.04	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	149.06	146.93	0.00	422.08	0.353	0.53	12.986	B
C-AB	14.36	14.26	0.00	601.42	0.024	0.02	6.131	A
C-A	89.54	89.54	0.00	-	-	-	-	-
A-B	70.77	70.77	0.00	-	-	-	-	-
A-C	68.51	68.51	0.00	-	-	-	-	-

**Main results: (08:00-08:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	178.00	177.22	0.00	415.83	0.428	0.73	15.035	C
C-AB	17.17	17.15	0.00	595.87	0.029	0.03	6.220	A
C-A	106.89	106.89	0.00	-	-	-	-	-
A-B	84.50	84.50	0.00	-	-	-	-	-
A-C	81.81	81.81	0.00	-	-	-	-	-

**Main results: (08:15-08:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	218.00	216.49	0.00	407.21	0.535	1.11	18.720	C
C-AB	21.09	21.06	0.00	588.41	0.036	0.04	6.344	A
C-A	130.85	130.85	0.00	-	-	-	-	-
A-B	103.50	103.50	0.00	-	-	-	-	-
A-C	100.19	100.19	0.00	-	-	-	-	-

**Main results: (08:30-08:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	218.00	217.91	0.00	407.20	0.535	1.13	18.994	C
C-AB	21.09	21.09	0.00	588.41	0.036	0.04	6.344	A
C-A	130.85	130.85	0.00	-	-	-	-	-
A-B	103.50	103.50	0.00	-	-	-	-	-
A-C	100.19	100.19	0.00	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	178.00	179.43	0.00	415.82	0.428	0.77	15.320	C
C-AB	17.17	17.20	0.00	595.87	0.029	0.03	6.220	A
C-A	106.89	106.89	0.00	-	-	-	-	-
A-B	84.50	84.50	0.00	-	-	-	-	-
A-C	81.81	81.81	0.00	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	149.06	149.91	0.00	422.05	0.353	0.56	13.272	B
C-AB	14.36	14.38	0.00	601.42	0.024	0.02	6.134	A
C-A	89.54	89.54	0.00	-	-	-	-	-
A-B	70.77	70.77	0.00	-	-	-	-	-
A-C	68.51	68.51	0.00	-	-	-	-	-



<b>Junctions 8</b>
<b>PICADY 8 - Priority Intersection Module</b>
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**Filename:** Fortbarrington Road-Bleach Road Opening Year 2025 PM.arc8

**Path:** C:\Users\mark.finnegan\Desktop

**Report generation date:** 16/09/2021 08:37:28

« **(Default Analysis Set) - Scenario 1, PM**

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

**Summary of junction performance**

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	<b>A1 - Scenario 1</b>			
Stream B-AC	0.47	13.70	0.32	B
Stream C-AB	0.03	6.67	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 16/09/2021 08:37:27

**File summary**

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, PM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, PM	Scenario 1	PM		ONE HOUR	16:45	18:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	12.83	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	305.00	100.000
B	ONE HOUR	✓	114.00	100.000
C	ONE HOUR	✓	111.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	135.000	170.000
	B	101.000	0.000	13.000
	C	95.000	16.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.44	0.56
	B	0.89	0.00	0.11
	C	0.86	0.14	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.32	13.70	0.47	B
C-AB	0.03	6.67	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	85.83	84.78	0.00	408.35	0.210	0.26	11.091	B
C-AB	12.08	11.99	0.00	580.33	0.021	0.02	6.334	A
C-A	71.49	71.49	0.00	-	-	-	-	-
A-B	101.64	101.64	0.00	-	-	-	-	-
A-C	127.98	127.98	0.00	-	-	-	-	-

**Main results: (17:00-17:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	102.48	102.18	0.00	399.91	0.256	0.34	12.079	B
C-AB	14.44	14.42	0.00	570.60	0.025	0.03	6.472	A
C-A	85.35	85.35	0.00	-	-	-	-	-
A-B	121.36	121.36	0.00	-	-	-	-	-
A-C	152.83	152.83	0.00	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	125.52	125.00	0.00	388.26	0.323	0.47	13.647	B
C-AB	17.72	17.69	0.00	557.32	0.032	0.03	6.670	A
C-A	104.49	104.49	0.00	-	-	-	-	-
A-B	148.64	148.64	0.00	-	-	-	-	-
A-C	187.17	187.17	0.00	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	125.52	125.50	0.00	388.26	0.323	0.47	13.698	B
C-AB	17.72	17.72	0.00	557.32	0.032	0.03	6.670	A
C-A	104.49	104.49	0.00	-	-	-	-	-
A-B	148.64	148.64	0.00	-	-	-	-	-
A-C	187.17	187.17	0.00	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	102.48	102.97	0.00	399.90	0.256	0.35	12.143	B
C-AB	14.44	14.46	0.00	570.60	0.025	0.03	6.472	A
C-A	85.35	85.35	0.00	-	-	-	-	-
A-B	121.36	121.36	0.00	-	-	-	-	-
A-C	152.83	152.83	0.00	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	85.83	86.15	0.00	408.32	0.210	0.27	11.187	B
C-AB	12.08	12.10	0.00	580.33	0.021	0.02	6.337	A
C-A	71.49	71.49	0.00	-	-	-	-	-
A-B	101.64	101.64	0.00	-	-	-	-	-
A-C	127.98	127.98	0.00	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
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**Filename:** Fortbarrington Road-Bleach Road 2030 PM.arc8  
**Path:** C:\Users\mark.finnegan\Desktop  
**Report generation date:** 16/09/2021 08:39:16

- « (Default Analysis Set) - Scenario 1, PM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.54	14.50	0.35	B
Stream C-AB	0.04	6.75	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 16/09/2021 08:39:15

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, PM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, PM	Scenario 1	PM		ONE HOUR	16:45	18:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	13.55	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	327.00	100.000
B	ONE HOUR	✓	123.00	100.000
C	ONE HOUR	✓	119.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	145.000	182.000
	B	109.000	0.000	14.000
	C	102.000	17.000	0.000



### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.44	0.56
	B	0.89	0.00	0.11
	C	0.86	0.14	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.35	14.50	0.54	B
C-AB	0.03	6.75	0.04	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	92.60	91.44	0.00	405.24	0.229	0.29	11.431	B
C-AB	12.84	12.75	0.00	576.70	0.022	0.02	6.383	A
C-A	76.75	76.75	0.00	-	-	-	-	-
A-B	109.16	109.16	0.00	-	-	-	-	-
A-C	137.02	137.02	0.00	-	-	-	-	-

**Main results: (17:00-17:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	110.57	110.22	0.00	396.20	0.279	0.38	12.571	B
C-AB	15.35	15.33	0.00	566.30	0.027	0.03	6.533	A
C-A	91.63	91.63	0.00	-	-	-	-	-
A-B	130.35	130.35	0.00	-	-	-	-	-
A-C	163.61	163.61	0.00	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	135.43	134.81	0.00	383.72	0.353	0.53	14.427	B
C-AB	18.85	18.82	0.00	552.13	0.034	0.04	6.749	A
C-A	112.17	112.17	0.00	-	-	-	-	-
A-B	159.65	159.65	0.00	-	-	-	-	-
A-C	200.39	200.39	0.00	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	135.43	135.40	0.00	383.71	0.353	0.54	14.497	B
C-AB	18.85	18.85	0.00	552.13	0.034	0.04	6.749	A
C-A	112.17	112.17	0.00	-	-	-	-	-
A-B	159.65	159.65	0.00	-	-	-	-	-
A-C	200.39	200.39	0.00	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	110.57	111.15	0.00	396.19	0.279	0.39	12.655	B
C-AB	15.35	15.38	0.00	566.30	0.027	0.03	6.536	A
C-A	91.63	91.63	0.00	-	-	-	-	-
A-B	130.35	130.35	0.00	-	-	-	-	-
A-C	163.61	163.61	0.00	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	92.60	92.97	0.00	405.21	0.229	0.30	11.543	B
C-AB	12.84	12.86	0.00	576.70	0.022	0.02	6.384	A
C-A	76.75	76.75	0.00	-	-	-	-	-
A-B	109.16	109.16	0.00	-	-	-	-	-
A-C	137.02	137.02	0.00	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
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**Filename:** Fortbarrington Road-Bleach Road 2040 PM.arc8  
**Path:** C:\Users\mark.finnegan\Desktop  
**Report generation date:** 16/09/2021 08:41:21

- « (Default Analysis Set) - Scenario 1, PM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	1.62	27.94	0.63	D
Stream C-AB	0.06	7.53	0.06	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 16/09/2021 08:41:20

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, PM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, PM	Scenario 1	PM		ONE HOUR	16:45	18:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	25.44	D

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	519.00	100.000
B	ONE HOUR	✓	196.00	100.000
C	ONE HOUR	✓	188.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	232.000	287.000
	B	174.000	0.000	22.000
	C	161.000	27.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.45	0.55
	B	0.89	0.00	0.11
	C	0.86	0.14	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.63	27.94	1.62	D
C-AB	0.06	7.53	0.06	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	147.56	145.07	0.00	378.00	0.390	0.62	15.300	C
C-AB	20.50	20.34	0.00	545.62	0.038	0.04	6.851	A
C-A	121.04	121.04	0.00	-	-	-	-	-
A-B	174.66	174.66	0.00	-	-	-	-	-
A-C	216.07	216.07	0.00	-	-	-	-	-

**Main results: (17:00-17:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	176.20	175.07	0.00	363.66	0.485	0.91	18.967	C
C-AB	24.58	24.54	0.00	529.82	0.046	0.05	7.124	A
C-A	144.43	144.43	0.00	-	-	-	-	-
A-B	208.56	208.56	0.00	-	-	-	-	-
A-C	258.01	258.01	0.00	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	215.80	213.15	0.00	343.85	0.628	1.57	26.982	D
C-AB	30.35	30.29	0.00	508.65	0.060	0.06	7.525	A
C-A	176.64	176.64	0.00	-	-	-	-	-
A-B	255.44	255.44	0.00	-	-	-	-	-
A-C	315.99	315.99	0.00	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	215.80	215.59	0.00	343.83	0.628	1.62	27.941	D
C-AB	30.35	30.35	0.00	508.65	0.060	0.06	7.525	A
C-A	176.64	176.64	0.00	-	-	-	-	-
A-B	255.44	255.44	0.00	-	-	-	-	-
A-C	315.99	315.99	0.00	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	176.20	178.78	0.00	363.63	0.485	0.98	19.735	C
C-AB	24.58	24.64	0.00	529.82	0.046	0.05	7.126	A
C-A	144.43	144.43	0.00	-	-	-	-	-
A-B	208.56	208.56	0.00	-	-	-	-	-
A-C	258.01	258.01	0.00	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	147.56	148.83	0.00	377.95	0.390	0.66	15.799	C
C-AB	20.50	20.54	0.00	545.62	0.038	0.04	6.858	A
C-A	121.04	121.04	0.00	-	-	-	-	-
A-B	174.66	174.66	0.00	-	-	-	-	-
A-C	216.07	216.07	0.00	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
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**Filename:** Fortbarrington Road-Bleach Road Opening Year 2025 PM WO Dev.arc8

**Path:** C:\Users\mark.finnegan\Desktop

**Report generation date:** 16/09/2021 08:43:50

« (Default Analysis Set) - Scenario 1, PM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

**Summary of junction performance**

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.47	13.62	0.32	B
Stream C-AB	0.03	6.65	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 16/09/2021 08:43:50

**File summary**

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	



## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, PM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, PM	Scenario 1	PM		ONE HOUR	16:45	18:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	12.76	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	299.00	100.000
B	ONE HOUR	✓	114.00	100.000
C	ONE HOUR	✓	109.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	135.000	164.000
	B	101.000	0.000	13.000
	C	93.000	16.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.45	0.55
	B	0.89	0.00	0.11
	C	0.85	0.15	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.32	13.62	0.47	B
C-AB	0.03	6.65	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	85.83	84.78	0.00	409.39	0.210	0.26	11.056	B
C-AB	12.08	11.99	0.00	581.34	0.021	0.02	6.323	A
C-A	69.99	69.99	0.00	-	-	-	-	-
A-B	101.64	101.64	0.00	-	-	-	-	-
A-C	123.47	123.47	0.00	-	-	-	-	-

**Main results: (17:00-17:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	102.48	102.18	0.00	401.15	0.255	0.34	12.029	B
C-AB	14.44	14.42	0.00	571.80	0.025	0.03	6.458	A
C-A	83.55	83.55	0.00	-	-	-	-	-
A-B	121.36	121.36	0.00	-	-	-	-	-
A-C	147.43	147.43	0.00	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	125.52	125.01	0.00	389.78	0.322	0.47	13.568	B
C-AB	17.72	17.69	0.00	558.77	0.032	0.03	6.652	A
C-A	102.29	102.29	0.00	-	-	-	-	-
A-B	148.64	148.64	0.00	-	-	-	-	-
A-C	180.57	180.57	0.00	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	125.52	125.50	0.00	389.77	0.322	0.47	13.619	B
C-AB	17.72	17.72	0.00	558.77	0.032	0.03	6.652	A
C-A	102.29	102.29	0.00	-	-	-	-	-
A-B	148.64	148.64	0.00	-	-	-	-	-
A-C	180.57	180.57	0.00	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	102.48	102.97	0.00	401.14	0.255	0.35	12.095	B
C-AB	14.44	14.46	0.00	571.80	0.025	0.03	6.458	A
C-A	83.55	83.55	0.00	-	-	-	-	-
A-B	121.36	121.36	0.00	-	-	-	-	-
A-C	147.43	147.43	0.00	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	85.83	86.14	0.00	409.36	0.210	0.27	11.151	B
C-AB	12.08	12.09	0.00	581.34	0.021	0.02	6.323	A
C-A	69.99	69.99	0.00	-	-	-	-	-
A-B	101.64	101.64	0.00	-	-	-	-	-
A-C	123.47	123.47	0.00	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
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**Filename:** Fortbarrington Road-Bleach Road 2030 PM WO Dev.arc8  
**Path:** C:\Users\mark.finnegan\Desktop  
**Report generation date:** 16/09/2021 08:45:34

- « (Default Analysis Set) - Scenario 1, PM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.54	14.41	0.35	B
Stream C-AB	0.04	6.73	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 16/09/2021 08:45:33

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, PM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, PM	Scenario 1	PM		ONE HOUR	16:45	18:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	13.47	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	321.00	100.000
B	ONE HOUR	✓	123.00	100.000
C	ONE HOUR	✓	117.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	145.000	176.000
	B	109.000	0.000	14.000
	C	100.000	17.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.45	0.55
	B	0.89	0.00	0.11
	C	0.85	0.15	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.35	14.41	0.54	B
C-AB	0.03	6.73	0.04	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	92.60	91.44	0.00	406.28	0.228	0.29	11.393	B
C-AB	12.84	12.75	0.00	577.71	0.022	0.02	6.372	A
C-A	75.25	75.25	0.00	-	-	-	-	-
A-B	109.16	109.16	0.00	-	-	-	-	-
A-C	132.50	132.50	0.00	-	-	-	-	-



**Main results: (17:00-17:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	110.57	110.22	0.00	397.44	0.278	0.38	12.517	B
C-AB	15.35	15.33	0.00	567.50	0.027	0.03	6.519	A
C-A	89.83	89.83	0.00	-	-	-	-	-
A-B	130.35	130.35	0.00	-	-	-	-	-
A-C	158.22	158.22	0.00	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	135.43	134.82	0.00	385.23	0.352	0.53	14.339	B
C-AB	18.84	18.81	0.00	553.58	0.034	0.04	6.731	A
C-A	109.98	109.98	0.00	-	-	-	-	-
A-B	159.65	159.65	0.00	-	-	-	-	-
A-C	193.78	193.78	0.00	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	135.43	135.40	0.00	385.22	0.352	0.54	14.409	B
C-AB	18.84	18.84	0.00	553.58	0.034	0.04	6.731	A
C-A	109.98	109.98	0.00	-	-	-	-	-
A-B	159.65	159.65	0.00	-	-	-	-	-
A-C	193.78	193.78	0.00	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	110.57	111.15	0.00	397.42	0.278	0.39	12.600	B
C-AB	15.35	15.38	0.00	567.50	0.027	0.03	6.522	A
C-A	89.83	89.83	0.00	-	-	-	-	-
A-B	130.35	130.35	0.00	-	-	-	-	-
A-C	158.22	158.22	0.00	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	92.60	92.97	0.00	406.25	0.228	0.30	11.507	B
C-AB	12.84	12.86	0.00	577.71	0.022	0.02	6.375	A
C-A	75.25	75.25	0.00	-	-	-	-	-
A-B	109.16	109.16	0.00	-	-	-	-	-
A-C	132.50	132.50	0.00	-	-	-	-	-

Junctions 8
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**Filename:** Fortbarrington Road-Bleach Road 2040 PM WO Dev.arc8

**Path:** C:\Users\mark.finnegan\Desktop

**Report generation date:** 16/09/2021 08:47:16

« (Default Analysis Set) - Scenario 1, PM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

**Summary of junction performance**

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	1.60	27.62	0.62	D
Stream C-AB	0.06	7.50	0.06	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 16/09/2021 08:47:16

**File summary**

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, PM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, PM	Scenario 1	PM		ONE HOUR	16:45	18:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Fortbarrington Road/Bleach Road	T-Junction	Two-way	A,B,C	25.15	D

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Bleach Road		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.075	0.189	0.119	0.270
1	B-C	573.963	0.082	0.208	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	513.00	100.000
B	ONE HOUR	✓	196.00	100.000
C	ONE HOUR	✓	186.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	232.000	281.000
	B	174.000	0.000	22.000
	C	159.000	27.000	0.000



### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.45	0.55
	B	0.89	0.00	0.11
	C	0.85	0.15	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.62	27.62	1.60	D
C-AB	0.06	7.50	0.06	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	147.56	145.08	0.00	379.04	0.389	0.62	15.234	C
C-AB	20.49	20.34	0.00	546.61	0.037	0.04	6.839	A
C-A	119.54	119.54	0.00	-	-	-	-	-
A-B	174.66	174.66	0.00	-	-	-	-	-
A-C	211.55	211.55	0.00	-	-	-	-	-

**Main results: (17:00-17:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	176.20	175.08	0.00	364.90	0.483	0.90	18.846	C
C-AB	24.58	24.54	0.00	530.98	0.046	0.05	7.108	A
C-A	142.63	142.63	0.00	-	-	-	-	-
A-B	208.56	208.56	0.00	-	-	-	-	-
A-C	252.61	252.61	0.00	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	215.80	213.19	0.00	345.37	0.625	1.55	26.696	D
C-AB	30.34	30.28	0.00	510.04	0.059	0.06	7.503	A
C-A	174.45	174.45	0.00	-	-	-	-	-
A-B	255.44	255.44	0.00	-	-	-	-	-
A-C	309.39	309.39	0.00	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	215.80	215.59	0.00	345.35	0.625	1.60	27.621	D
C-AB	30.34	30.34	0.00	510.04	0.059	0.06	7.503	A
C-A	174.45	174.45	0.00	-	-	-	-	-
A-B	255.44	255.44	0.00	-	-	-	-	-
A-C	309.39	309.39	0.00	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	176.20	178.73	0.00	364.87	0.483	0.97	19.595	C
C-AB	24.58	24.63	0.00	530.98	0.046	0.05	7.112	A
C-A	142.63	142.63	0.00	-	-	-	-	-
A-B	208.56	208.56	0.00	-	-	-	-	-
A-C	252.61	252.61	0.00	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	147.56	148.82	0.00	378.99	0.389	0.65	15.727	C
C-AB	20.49	20.53	0.00	546.61	0.037	0.04	6.845	A
C-A	119.54	119.54	0.00	-	-	-	-	-
A-B	174.66	174.66	0.00	-	-	-	-	-
A-C	211.55	211.55	0.00	-	-	-	-	-

Junctions 8
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**Filename:** Proposed Development-Fortbarrington Road Opening Year 2025 PM.arc8  
**Path:** C:\Users\mark.finnegan\Desktop  
**Report generation date:** 16/09/2021 10:26:48

- « (Default Analysis Set) - Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.03	7.09	0.03	A
Stream C-AB	0.03	6.32	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 16/09/2021 10:26:47

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Proposed Development/Fortbarrington Road	T-Junction	Two-way	A,B,C	6.69	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road South		Major
B	B	Proposed Development		Minor
C	C	Fortbarrington Road North		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*



## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.00										75	75

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	539.430	0.092	0.232	0.146	0.332
1	B-C	671.152	0.096	0.243	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	205.00	100.000
B	ONE HOUR	✓	15.00	100.000
C	ONE HOUR	✓	349.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	2.000	203.000
	B	6.000	0.000	9.000
	C	333.000	16.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.40	0.00	0.60
	C	0.95	0.05	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.03	7.09	0.03	A
C-AB	0.03	6.32	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.29	11.21	0.00	552.45	0.020	0.02	6.651	A
C-AB	12.15	12.07	0.00	599.93	0.020	0.02	6.124	A
C-A	250.60	250.60	0.00	-	-	-	-	-
A-B	1.51	1.51	0.00	-	-	-	-	-
A-C	152.83	152.83	0.00	-	-	-	-	-

**Main results: (08:00-08:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	13.48	13.47	0.00	540.66	0.025	0.03	6.828	A
C-AB	14.56	14.54	0.00	594.59	0.024	0.03	6.205	A
C-A	299.18	299.18	0.00	-	-	-	-	-
A-B	1.80	1.80	0.00	-	-	-	-	-
A-C	182.49	182.49	0.00	-	-	-	-	-

**Main results: (08:15-08:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	16.52	16.49	0.00	524.16	0.032	0.03	7.090	A
C-AB	17.95	17.93	0.00	587.72	0.031	0.03	6.317	A
C-A	366.30	366.30	0.00	-	-	-	-	-
A-B	2.20	2.20	0.00	-	-	-	-	-
A-C	223.51	223.51	0.00	-	-	-	-	-

**Main results: (08:30-08:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	16.52	16.51	0.00	524.16	0.032	0.03	7.090	A
C-AB	17.95	17.95	0.00	587.72	0.031	0.03	6.317	A
C-A	366.30	366.30	0.00	-	-	-	-	-
A-B	2.20	2.20	0.00	-	-	-	-	-
A-C	223.51	223.51	0.00	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	13.48	13.51	0.00	540.65	0.025	0.03	6.828	A
C-AB	14.56	14.59	0.00	594.59	0.024	0.03	6.206	A
C-A	299.18	299.18	0.00	-	-	-	-	-
A-B	1.80	1.80	0.00	-	-	-	-	-
A-C	182.49	182.49	0.00	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.29	11.31	0.00	552.43	0.020	0.02	6.654	A
C-AB	12.15	12.17	0.00	599.93	0.020	0.02	6.124	A
C-A	250.60	250.60	0.00	-	-	-	-	-
A-B	1.51	1.51	0.00	-	-	-	-	-
A-C	152.83	152.83	0.00	-	-	-	-	-

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**Filename:** Proposed Development-Fortbarrington Road 2030 PM.arc8  
**Path:** C:\Users\mark.finnegan\Desktop  
**Report generation date:** 16/09/2021 10:35:41

- « (Default Analysis Set) - Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

### Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.03	7.18	0.03	A
Stream C-AB	0.03	6.36	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 16/09/2021 10:35:41

### File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/08/2021
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<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	



## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Proposed Development/Fortbarrington Road	T-Junction	Two-way	A,B,C	6.75	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Proposed Development		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.00										75	75

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	539.430	0.092	0.232	0.146	0.332
1	B-C	671.152	0.096	0.243	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	220.00	100.000
B	ONE HOUR	✓	15.00	100.000
C	ONE HOUR	✓	373.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	2.000	218.000
	B	6.000	0.000	9.000
	C	357.000	16.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.40	0.00	0.60
	C	0.96	0.04	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.03	7.18	0.03	A
C-AB	0.03	6.36	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.29	11.21	0.00	548.20	0.021	0.02	6.704	A
C-AB	12.16	12.07	0.00	597.61	0.020	0.02	6.148	A
C-A	268.66	268.66	0.00	-	-	-	-	-
A-B	1.51	1.51	0.00	-	-	-	-	-
A-C	164.12	164.12	0.00	-	-	-	-	-

**Main results: (08:00-08:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	13.48	13.47	0.00	535.53	0.025	0.03	6.895	A
C-AB	14.58	14.56	0.00	591.90	0.025	0.03	6.235	A
C-A	320.74	320.74	0.00	-	-	-	-	-
A-B	1.80	1.80	0.00	-	-	-	-	-
A-C	195.98	195.98	0.00	-	-	-	-	-

**Main results: (08:15-08:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	16.52	16.49	0.00	517.79	0.032	0.03	7.180	A
C-AB	17.98	17.96	0.00	584.55	0.031	0.03	6.353	A
C-A	392.70	392.70	0.00	-	-	-	-	-
A-B	2.20	2.20	0.00	-	-	-	-	-
A-C	240.02	240.02	0.00	-	-	-	-	-

**Main results: (08:30-08:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	16.52	16.51	0.00	517.78	0.032	0.03	7.180	A
C-AB	17.98	17.98	0.00	584.55	0.031	0.03	6.355	A
C-A	392.70	392.70	0.00	-	-	-	-	-
A-B	2.20	2.20	0.00	-	-	-	-	-
A-C	240.02	240.02	0.00	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	13.48	13.51	0.00	535.52	0.025	0.03	6.895	A
C-AB	14.58	14.60	0.00	591.90	0.025	0.03	6.238	A
C-A	320.74	320.74	0.00	-	-	-	-	-
A-B	1.80	1.80	0.00	-	-	-	-	-
A-C	195.98	195.98	0.00	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.29	11.31	0.00	548.18	0.021	0.02	6.707	A
C-AB	12.16	12.17	0.00	597.61	0.020	0.02	6.148	A
C-A	268.66	268.66	0.00	-	-	-	-	-
A-B	1.51	1.51	0.00	-	-	-	-	-
A-C	164.12	164.12	0.00	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
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« (Default Analysis Set) - Scenario 1, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

**Summary of junction performance**

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Scenario 1			
Stream B-AC	0.04	8.11	0.04	A
Stream C-AB	0.03	6.67	0.03	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.4.487 at 16/09/2021 10:37:21

**File summary**

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<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	mark.finnegan
<b>Description</b>	



## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	AM		ONE HOUR	07:45	09:15	90	15		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Proposed Development/Fortbarrington Road	T-Junction	Two-way	A,B,C	7.36	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Fortbarrington Road North		Major
B	B	Proposed Development		Minor
C	C	Fortbarrington Road South		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.50		0.00		2.20	100.00	✓	1.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.00										75	75

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	539.430	0.092	0.232	0.146	0.332
1	B-C	671.152	0.096	0.243	-	-
1	C-B	631.874	0.229	0.229	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	350.00	100.000
B	ONE HOUR	✓	15.00	100.000
C	ONE HOUR	✓	587.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	2.000	348.000
	B	6.000	0.000	9.000
	C	571.000	16.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.40	0.00	0.60
	C	0.97	0.03	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	8.11	0.04	A
C-AB	0.03	6.67	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.29	11.20	0.00	510.33	0.022	0.02	7.212	A
C-AB	12.24	12.15	0.00	577.73	0.021	0.02	6.365	A
C-A	429.69	429.69	0.00	-	-	-	-	-
A-B	1.51	1.51	0.00	-	-	-	-	-
A-C	261.99	261.99	0.00	-	-	-	-	-

**Main results: (08:00-08:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	13.48	13.46	0.00	489.61	0.028	0.03	7.559	A
C-AB	14.72	14.70	0.00	568.89	0.026	0.03	6.495	A
C-A	512.98	512.98	0.00	-	-	-	-	-
A-B	1.80	1.80	0.00	-	-	-	-	-
A-C	312.84	312.84	0.00	-	-	-	-	-

**Main results: (08:15-08:30)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	16.52	16.48	0.00	460.23	0.036	0.04	8.113	A
C-AB	18.28	18.25	0.00	557.75	0.033	0.03	6.672	A
C-A	628.02	628.02	0.00	-	-	-	-	-
A-B	2.20	2.20	0.00	-	-	-	-	-
A-C	383.16	383.16	0.00	-	-	-	-	-

**Main results: (08:30-08:45)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	16.52	16.51	0.00	460.22	0.036	0.04	8.113	A
C-AB	18.28	18.28	0.00	557.75	0.033	0.03	6.672	A
C-A	628.02	628.02	0.00	-	-	-	-	-
A-B	2.20	2.20	0.00	-	-	-	-	-
A-C	383.16	383.16	0.00	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	13.48	13.52	0.00	489.60	0.028	0.03	7.564	A
C-AB	14.72	14.75	0.00	568.89	0.026	0.03	6.496	A
C-A	512.98	512.98	0.00	-	-	-	-	-
A-B	1.80	1.80	0.00	-	-	-	-	-
A-C	312.84	312.84	0.00	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.29	11.32	0.00	510.31	0.022	0.02	7.213	A
C-AB	12.24	12.26	0.00	577.73	0.021	0.02	6.368	A
C-A	429.69	429.69	0.00	-	-	-	-	-
A-B	1.51	1.51	0.00	-	-	-	-	-
A-C	261.99	261.99	0.00	-	-	-	-	-



## Appendix C Road Safety Audit



PPP Social Housing Bundle 3:  
Development at Athy, Co. Kildare  
Stage 1&2 Road Safety Audit

RPS Group

August 2021

# PPP Social Housing Bundle 3: Development at Athy, Co. Kildare

## Stage 1&2 Road Safety Audit

**August 2021**

### Notice

This document and its contents have been prepared and are intended solely for RPS Group's information and use in relation to the proposed Social Housing Development at Athy, Co. Kildare.

Traffico assumes no responsibility to any other party in respect of or arising out of or in connection with this document and / or its contents.

### Document History

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Revision	Purpose Description	Originated	Checked	Reviewed	Authorised	Date
1	Draft Issue	JW	MD	MD	MD	Thursday 19 <sup>th</sup> August 2021
0	Draft Issue	JW	MD	MD	MD	Monday 9 <sup>th</sup> August 2021

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# 1. Introduction

## 1.1 Report Context

This report describes the findings of a Stage 1&2 Road Safety Audit associated with the proposed Social Housing Development at Athy, Co. Kildare.

The Audit has been completed by Traffico Ltd. on behalf of RPS Group.

## 1.2 Details of Site Inspection

Date	Daylight / Darkness	Weather & Road Conditions
Friday 30 <sup>h</sup> July 2021	Daylight	Cloudy, wet roads.

Table 1.1 – Site Inspection Details

## 1.3 The Road Safety Audit Team

The members of the Road Safety Audit Team have been listed following:

Status	Name / Qualifications	TII Auditor Reference No:
Audit Team Leader (ATL)	<b>Jason Walsh</b> BEng (Hons) PCert (RSA) CEng MIEI	JW3362499
Audit Team Member (ATM)	<b>Martin Deegan</b> BEng(Hons) MSc CEng MIEI	MD101312
Audit Trainee (AT)	-	-

Table 1.2 – Audit Team Details

## 1.4 Design Drawings Examined as Part of the Audit Process

The following drawing(s) were examined as part of the Road Safety Audit (RSA) process:

Drawing No.	Drawing Title	Revision
SHB3-ATY-AR-COA-SK-0001	Proposed Site Plan	A

Table 1.3 – Designers Drawing List

## 1.5 Road Safety Audit Compliance

### Procedure and Scope

This Road Safety Audit has been carried out in accordance with the procedures and scope set out in TII publication number GE-STY-01024 - Road Safety Audit.

As part of the road safety audit process, the Audit Team have examined only those issues within the design which relate directly to road safety.

**Compliance with Design Standards**

The road safety audit process is not a design check, therefore verification or compliance with design standards has not formed part of the audit process.

**Minimizing Risk of Collision Occurrence**

All problems described in this report are considered by the Audit Team to require action in order to improve the safety of the scheme and minimise the risk of collision occurrence.



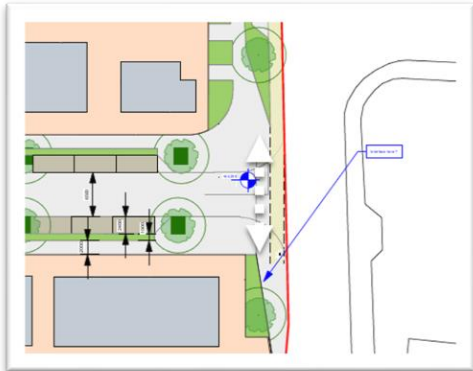
## 2. Road Safety Issues Identified

### 2.1 Problem: Pedestrian Priority at Access

**Location:** Main Direct Access Junction onto Fortbarrington Road

Measures to afford priority and safe crossing for pedestrians do not appear to have been proposed at the new access junction. This could lead to conflicts between pedestrians and vehicles.

Figure 2.1 – Pedestrian Crossing at Main Access Junction



#### Recommendation

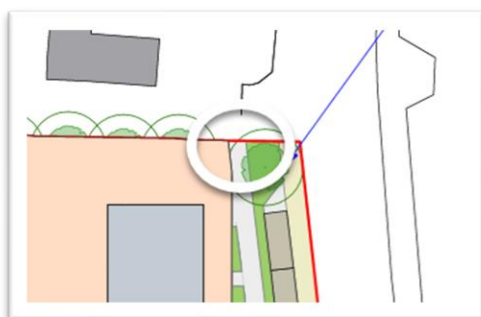
Measures to afford both priority and safe crossing for pedestrians should be provided at the location described.

### 2.2 Problem: Footpath Termination & Connection

**Location:** Site Frontage onto Fortbarrington Road, Northern Boundary Termination

The proposed footpath both directs pedestrians towards and terminates at an existing dwelling access. This could lead to pedestrians (in particular the mobility impaired) coming into conflict with traffic as they attempt to cross the road to re-join the safety of a footpath which continues on the opposite side of the road.

Figure 2.2 – Northern Termination of Proposed Footpath



#### Recommendation

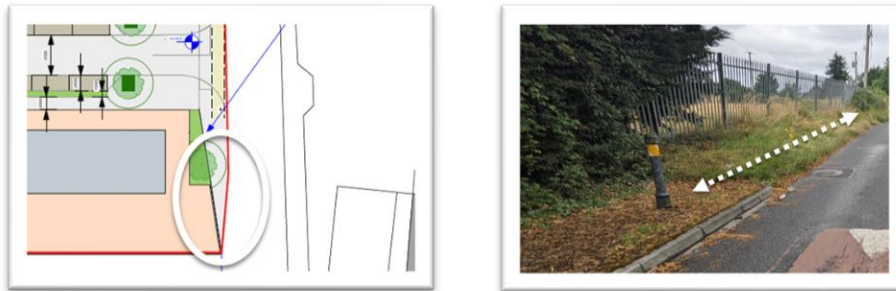
The footpath termination should be moved away from the dwelling access and a formal crossing connection should be provided to the footpaths on the opposite side of the road.

## 2.3 Problem: Footpath Termination & Connection

**Location:** Site Frontage onto Fortbarrington Road, Southern Boundary Termination

A tapered footpath termination has been proposed without safe connection for pedestrians to existing footpaths further to the south in front of the Halting Site. This could lead to pedestrians (in particular the mobility impaired) being forced to walk in the carriageway with general traffic.

Figure 2.3 – Southern Connection of Proposed Footpath



### Recommendation

The tapered termination should be replaced with a footpath of continuous (and appropriate) width which connects to the existing footpath facilities in front of the Halting Site.

## 2.4 Problem: Pedestrian Desire Line to Amenities

**Location:** Amenities on Opposite Side of Fortbarrington Road

Residents and visitors will be attracted to the various amenities on the opposite side of Fortbarrington Road. Failure to provide a formal crossing here (to meet the increase in footfall) could result in conflicts between pedestrians and general traffic.

Figure 2.4 – Pedestrian Desire Line across Fortbarrington Road



### Recommendation

A formal pedestrian crossing facility should be provided to link the housing development with the various amenities.

## 2.5 Problem: Footpath Terminating Each Side of Parking

**Location:** Main Internal Street

The footpath terminates each side of a short section of parallel parking. This is inconsistent with the rest of the development and could result in conflicts between pedestrians and general traffic.

Figure 2.5 – Footpath Terminating Each Side of Parking



### Recommendation

The footpath should be continued behind the parallel parking.

## 2.6 Problem: Catering for Pedestrian Desire Lines

**Location:** Internal Streets at Key Junctions

Direct crossing points on many of the key pedestrian desire lines have been obstructed by parking or planting. This could result in conflicts between pedestrians and general traffic.

Figure 2.6 – Some Examples of Where Crossing Points Have Been Obstructed at Key Junctions



### Recommendation

Formal, direct courtesy crossings should be aligned with pedestrian desire lines where they are likely to occur on the internal road network.

### 3. Audit Team Statement

#### 3.1 Certification & Purpose

We certify that we have examined the drawing(s) listed in Chapter 1 of this Report.

**Sole Purpose of the Road Safety Audit**

The Road Safety Audit has been carried out with the sole purpose of identifying any features of the design which could be removed or modified to improve the road safety aspects of the scheme.

#### 3.2 Implementation of RSA Recommendations

The problems identified herein have been noted in the Report together with their associated recommendations for road safety improvements.

We (the Audit Team) propose that these recommendations should be studied with a view to implementation.

**Audit Team’s Independence to the Design Process**

No member of the Audit Team has been otherwise involved with the design of the measures audited.

#### 3.3 Road Safety Audit Team Sign-Off

**Martin Deegan**

Audit Team Leader  
Road Safety Engineering Team

traffico

Signed:



Date:

Monday 9<sup>th</sup> August 2021

**Jason Walsh**

Audit Team Member  
Road Safety Engineering Team

traffico

Signed:



Date:

Monday 9<sup>th</sup> August 2021

## 4. Designers Response

### 4.1 How the Designer Should Respond to the Road Safety Audit

The Designer should prepare an Audit Response for each of the recommendations using the Road Safety Audit Feedback Form attached in Appendix A.

When completed, this form should be signed by the Designer and returned to the Audit Team for consideration. See flow-chart following for further description.



Figure 4.1 – Road Safety Audit Sign-Off and Completion Process

### 4.2 Returning the Completed Feedback Form

The Designer should return the completed Road Safety Audit Feedback Form attached in Appendix A of this report to the following email address:

- Email address: [martin@traffico.ie](mailto:martin@traffico.ie)
- Telephone: 087 948 3535

The Audit Team will consider the Designer’s response and reply indicating acceptance or otherwise of the Designers response to each recommendation.

#### Triggering the Need for an Exception Report

Where the Designer and the Audit Team cannot agree on an appropriate means of addressing an underlying safety issue identified as part of the audit process, an Exception Report must be prepared by the Designer on each disputed item listed in the audit report.



## Appendix A

### A.1 Road Safety Audit Feedback Form

# Road Safety Audit Feedback Form

**Scheme:** PPP Social Housing Bundle 3: Development at Athy, Co. Kildare

**Audit Stage:** Stage 1&2 Road Safety Audit

**Audit Date:** Monday 9<sup>th</sup> August 2021

Problem Reference (Section 2)	Designer Response Section			Audit Team Response Section
	Problem Accepted (yes / no)	Recommended Measure Accepted (yes / no)	Alternative Measures or Comments	Alternative Measures Accepted (yes / no)
2.1	Yes	Yes		
2.2	Yes	Yes	A pedestrian crossing is proposed at this location for review and approval by Kildare County Council.	<i>Noted with thanks</i>
2.3	Yes	Yes		
2.4	Yes	Yes	This will be discussed with Kildare County Council.	<i>Noted with thanks</i>
2.5	Yes	Yes		
2.6	Yes	Yes		

*\*The Designer should complete the Designer Response Section above, then fill out the designer details below and return the completed form to the Road Safety Audit Team for consideration and signing.*

Designer's Name:

Des Keane

Designer's Signature:



Date: 18/08/2021

Audit Team's Name:

Martin Deegan

Audit Team's Signature:



Date: 19.08.21



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