

Junction: Greetwell Road  
 Scenario: 2033 AM

**Arcady Spreadsheet (Full Entry geometry)**

Geometric Parameters	Enter Values	Acceptable Ranges
Approach road half width (m)	V 3.7	( 2.2 - 12m )
Entry width (m)	e 7.0	( 3 - 16m )
Effective length over which the flare is developed	l' 26.1	Any but Trl only up to 30
Entry radius (m)	r 20.0	( >= 3m )
Inscribed circle diameter (m)	D 80.0	( > = 13m )
Entry conflict angle (m)	Phi 41.9	( 0 - 80 )

**INTERCEPT** = 29.265 (Veh / Min)  
 1756 (Veh / Hr)

**SLOPE** = 0.471

Enter circulating **0** Veh/min  
 Entry Capacity = 29.27 Veh/min, 1756 Veh/hr

.....  
 The above is for At-Grade roundabouts only

**STEP 1**

**Arcady Spreadsheet (Busy lane Entry Geometry)**

Geometric Parameters	Enter Values	Acceptable Ranges
Approach road half width (m)	V 3.7	( 2.2 - 12m )
Entry width (m)	e 3.8	( 3 - 16m )
Effective length over which the flare is developed	l' 26.1	Any but Trl only up to 30
Entry radius (m)	r 20.0	( >= 3m )
Inscribed circle diameter (m)	D 80.0	( > = 13m )
Entry conflict angle (m)	Phi 41.9	( 0 - 80 )

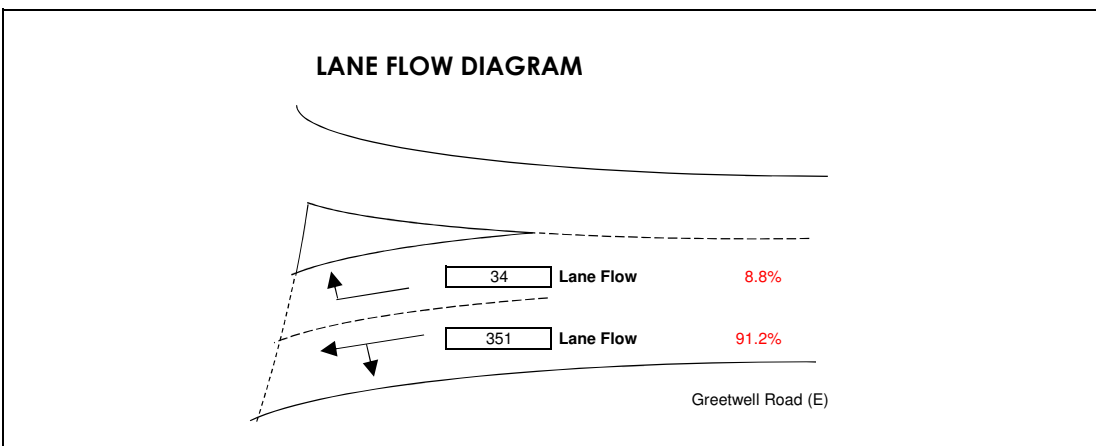
  

**INTERCEPT** = 18.150 (Veh / Min)  
 1089 (Veh / Hr)

**SLOPE** = 0.373

Enter circulating **0** Veh/min  
 Entry Capacity = 18.15 Veh/min, 1089 Veh/hr

.....  
 The above is for At-Grade roundabouts only



**STEP 2**

Calculate an Intercept correction to allow for the small volume of traffic using nearside as follows

$$\begin{aligned}
 \text{Intercept for approach} &= \frac{\text{Intercept for single lane} \times \text{Total arm flow}}{\text{Busy lane flow}} \\
 &= \frac{18.15 \times 385}{351} \\
 &= 19.908
 \end{aligned}$$

**STEP 3**

To achieve an Intercept of 19.908 for arm, an Intercept correction value of -9.357 should be applied.

Junction: Greetwell Road

Scenario: 2033 PM

**Arcady Spreadsheet (Full Entry geometry)**

Geometric Parameters	Enter Values	Acceptable Ranges
Approach road half width (m) <b>V</b>	3.7	( 2.2 - 12m )
Entry width (m) <b>e</b>	7.0	( 3 - 16m )
Effective length over which the flare is developed <b>l'</b>	26.1	Any but Trl only up to 30
Entry radius (m) <b>r</b>	20.0	( >= 3m )
Inscribed circle diameter (m) <b>D</b>	80.0	( >= 13m )
Entry conflict angle (m) <b>Phi</b>	41.9	( 0 - 80 )

**INTERCEPT** = 29.265 (Veh / Min)  
1756 (Veh / Hr)

**SLOPE** = 0.471

Enter circulating **0** Veh/min      **0** Veh/hr

Entry Capacity = 29.27      1756

.....

The above is for At-Grade roundabouts only

**STEP 1**

**Arcady Spreadsheet (Busy lane Entry Geometry)**

Geometric Parameters	Enter Values	Acceptable Ranges
Approach road half width (m) <b>V</b>	3.7	( 2.2 - 12m )
Entry width (m) <b>e</b>	3.8	( 3 - 16m )
Effective length over which the flare is developed <b>l'</b>	26.1	Any but Trl only up to 30
Entry radius (m) <b>r</b>	20.0	( >= 3m )
Inscribed circle diameter (m) <b>D</b>	80.0	( >= 13m )
Entry conflict angle (m) <b>Phi</b>	41.9	( 0 - 80 )

**INTERCEPT** = 18.150 (Veh / Min)  
1089 (Veh / Hr)

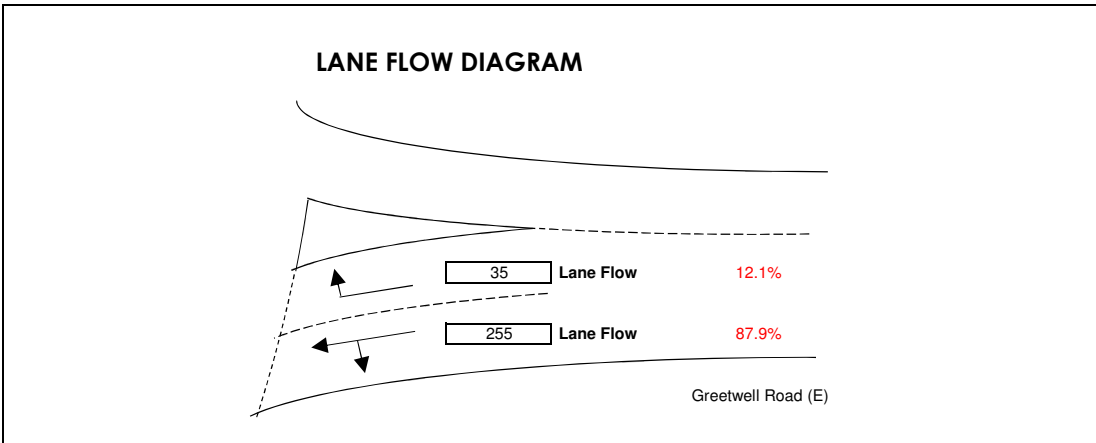
**SLOPE** = 0.373

Enter circulating **0** Veh/min      **0** Veh/hr

Entry Capacity = 18.15      1089

.....

The above is for At-Grade roundabouts only



**STEP 2**

Calculate an Intercept correction to allow for the small volume of traffic using nearside as follows

$$\begin{aligned}
 \text{Intercept for approach} &= \frac{\text{Intercept for single lane} \times \text{Total arm flow}}{\text{Busy lane flow}} \\
 &= \frac{18.15 \times 290}{255} \\
 &= 20.641
 \end{aligned}$$

**STEP 3**

To achieve an Intercept of 20.641 for arm, an Intercept correction value of -8.624 should be applied.