Traffic Counts

<table>
<thead>
<tr>
<th></th>
<th>AM</th>
<th>PM</th>
<th>12 hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Road</td>
<td>257</td>
<td>229</td>
<td>1870</td>
</tr>
<tr>
<td>B3213</td>
<td>449</td>
<td>393</td>
<td>3603</td>
</tr>
<tr>
<td>A38/Western Rd</td>
<td>531</td>
<td>620</td>
<td>6534</td>
</tr>
<tr>
<td>B3213</td>
<td>674</td>
<td>712</td>
<td>6534</td>
</tr>
<tr>
<td>A38/Western Rd</td>
<td>515</td>
<td>667</td>
<td>5493</td>
</tr>
</tbody>
</table>

Analysis

The traffic counts indicate that flows are higher in the east to west direction in the AM peak and west to east in the PM peak which was expected due to the commuting relationship between Ivybridge and Plymouth. In the AM peak, large volumes of traffic head west to access the A38 at the junction to the west of the town while traffic returning in the evening accesses the town via the same junction. However the flows are not entirely dominant in one direction - for example the school to the east of the town centre generates significant vehicular trips travelling in the opposite direction to the general commuting trend.

As the main access towards the A38, the B3213 across the town carries reasonably high levels of traffic. There were some incidences of queuing observed across the study area however there was no point where a queue extended back to block the next junction. Consequently any delays experienced were moderate and not considered to be severe.

Vehicles queue westbound consistently towards A38/Western Road roundabout (site 1) between 07:30 and 09:00 and between 17:00 and 17:15. The vehicles waiting at the crossroads junction between Western Road & St John's Road/Bowdens Park (site 3) heading in a westbound direction are a continuation of this queue, however the signals ensure that queues are controlled and dispersed quickly. Even at the busiest time, 08:10 to 08:15, the queue is less than 100m.

Queues from the A38/Western Road roundabout eastbound to the St John's Rd/Bowdens Park crossroads junction (site 2) are far shorter and the queues only exceed 100m on only two minutes in the PM peak when the flow is at its highest. On these couple of occasions, minor exit blocking has occurred at the roundabout junction however this has cleared very quickly and not presented a major issue.

There is minimal queuing along Marjorie Kelly Way into the Western Road/Marjorie Kelly Way mini-roundabout (site 5), and any queuing there was at that junction tended to be due to the signalised pedestrian crossing. There were no issues at sites 7 or 9 at the eastern end of the study area with queues not exceeding 5 vehicles at any one time in either peak.

On Leonards Road there is some queuing towards Exeter Road/Leonards Road roundabout in the PM peak (site 8), although the queue does not extend 100m back to Erme Court. The longest queues observed were at Marjorie Kelly/Leonards Road roundabout (site 6); queues were consistently above 10 vehicles between 17:10 and 17:20.

Often vehicles were slow moving along Western Road adjacent to the on street parking, however once vehicles passed this pinch point they could then move freely up to the mini roundabout junction between Western Road & Marjorie Kelly Way (site 4) where there no queuing was ever observed. Some queuing on Western Road in close proximity to the junction with the A38 is also generated by buses at the bus stops as the road width is not sufficient enough to allow cars to pass the parked buses when there are also vehicle movements in the opposite direction as there often are in the peak periods.

Conclusion

The flows in peak periods are relatively high in the west of the town resulting in steady queuing, particularly in the AM peak, on the Western Road approach to the roundabout with the A38 junction. However the queuing that does occur at this junction clears relatively quickly suggesting that the junction still functions adequately. Further analysis of transport assessments and the impact of additional development related trips on the roundabout indicates that during the peak periods the roundabout is near to capacity but the current design is considered acceptable and manages to distribute the flows well.

Ivybridge Traffic Diagram

The map below illustrates the road network in Ivybridge showing the four main roundabouts and the sites of the queue lengths surveyed.

Results

The graphs overleaf shows the lengths of any queuing in metres based on the assumption that an average vehicle is 5.75m long. Each bar represents roughly one minute with the red and blue bars representing the AM and PM peaks respectively for each site.
Traffic Counts

Ivybridge Traffic Diagram

**Introduction**

Ivybridge is located in the South Hams District Council area, approximately 20km to the east of Plymouth city centre. The accessibility of Ivybridge to Plymouth and more broadly the surrounding area is relatively high, with car ownership being high and journey-to-work distances relatively low. However, there were concerns raised by Highways England as the highway authority responsible for the A38 trunk road regarding the perceived congestion issues within the town at certain times along the B3213.

The emerging plan allocates 1079 new dwellings at Ivybridge during the plan period 2014-2034 which have previously been identified in the local plan or SHELAA process. Traffic assessment required through the Development Management process have identified that A38/Western Road roundabout will be operating near to capacity which may be a concern for queues onto the strategic road network. However to date the County Council is not aware of concerns raised by Highways England as the highway authority responsible for the A38 trunk road.

The study is to review concerns about perceived congestion issues within the town at certain times along the B3213 between the A38/Western Road roundabout and Leonards Road/Exeter Road roundabout due to the volumes of traffic heading to and from Plymouth in the AM and PM peaks respectively.

**Conclusion**

The flows in peak periods are relatively high in the west of the town resulting in steady queuing, particularly in the AM peak, on the Western Road approach to the roundabout with the A38 junction. However the queuing that does occur at this junction clears relatively quickly suggesting that the junction still functions adequately. Further analysis of transport assessments and the impact of additional development related trips on the roundabout indicates that during the peak periods the roundabout is near to capacity but the current design is considered acceptable and manages to distribute the flows well.
Note that graphs for sites 4, 7 and 9 have been omitted as queues were infrequent and less than 10 vehicles at any one time.