

TECHNICAL NOTE

Job Name: Chichester Local Plan Review
Job No: 47085/5502
Note No: 001
Date: 09/03/2023
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Checked: N Moyo
Approved: P Gebbett
Subject: Impacts on Highway Mitigation Schemes identified in Arun Local Plan

1. Introduction

- 1.1. This note sets out summary of assessments made on the 2039 SATURN models for both Reference Case and Local Plan with Mitigation scenarios with the objective of understanding the impact of Chichester's Local Plan on mitigation schemes identified within Arun's adopted Local Plan.
- 1.2. The models include committed mitigation schemes at A259/B2233 Oystercatcher Junction, B2132/A259 Comet Corner Junction and A27/Nyton Road junction included within both the Reference Case and Local Plan models. The first two fall within Arun District, however the latter is within Chichester.
- 1.3. This summary focuses on the difference in actual flows as well as vehicle capacity ratios at these junctions to identify whether the Chichester Local Plan traffic has any adverse impacts.

2. Traffic Flows

- 2.1. The traffic flow differences has been focused on the Oystercatcher and Comet Corner junctions. The two schemes here have been identified as safety schemes, this any noticeable additional traffic from Chichester Local Plan would be deemed to have a potential adverse impact.
- 2.2. Flow difference plots are provided within Appendix A1 and turning flows provided within Appendix A2. A summary of traffic throughput at the junctions is provided in Table 1. The outputs show that the flow differences are insignificant when comparing the Reference Case and Local Plan with Mitigation scenarios and therefore the Chichester Local Plan is deemed to have no significant impact.

Junction	AM Reference Case	AM LP Scenario
B2132/A259 Junction	3442	3425
Oystercatcher Junction	3881	3895
	PM Reference Case	PM LP Scenario
B2132/A259 Junction	3140	3104
Oystercatcher Junction	3740	3731

Table 1: Summary of throughput flows at selected Junctions.

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3. Vehicle Capacity Ratios.

- 3.1. This section focuses on all three junctions to determine whether there are any capacity issues as a result of the Chichester Local Plan development. Volume to Capacity Ratio (V/C) is used as the measure for this, with a figure of 100, indicating that a turn at the junction is at capacity.
- 3.2. Figure 1 shows the V/C outputs for A259 Comet Corner Junction. This shows that the mitigation scheme operates well within capacity in the Chichester Local Plan Scenario.

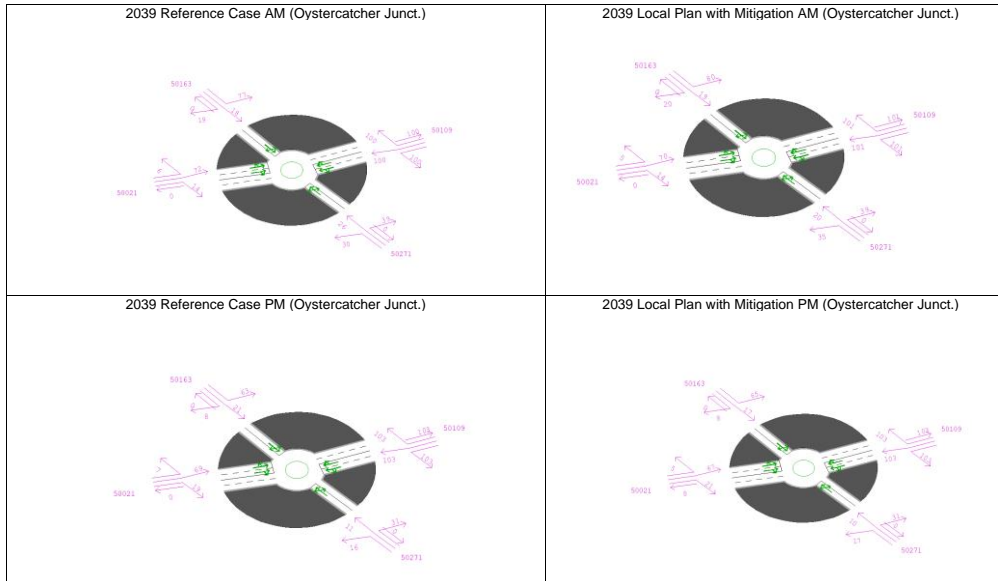
Figure 1: A259 Comet Corner Junction V/C Outputs



- 3.3. Figure 2 shows the V/C outputs for the A259 Oystercatcher junction. This indicates that all scenarios seem to be within capacity except for west bound traffic on the A259 at the Oystercatcher which increases from 100% to 101% in the AM peak, with the Local Plan traffic added, and there is no increase in delay, hence this increase in V/C is deemed to be insignificant and there is no material impact.
- 3.4. The same arm is also over capacity in the PM peak, however the Local Plan scenario does not increase above the Reference Case and therefore no material impact is seen.

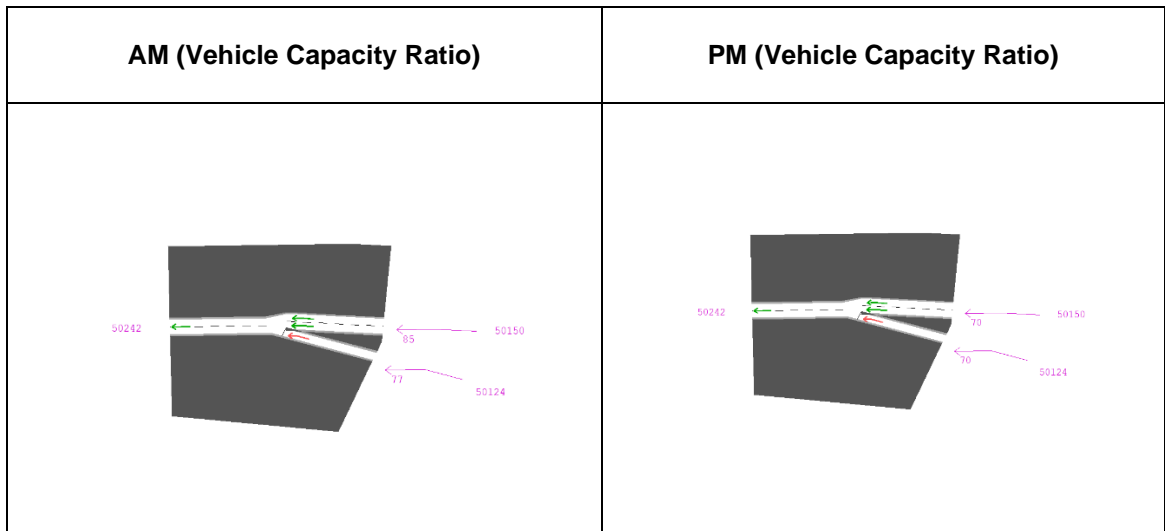
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Figure 2: A259 Oystercatcher Junction V/C Outputs



3.5. Figure 3 shows the V/C outputs for the A27/B2233 Nyton Rd Junction. This indicates that all arms are well below capacity as shown the figure below and therefore the Chichester Local Plan has no significant impact.

Figure 3: A27/Nyton Road Junction V/C Outputs

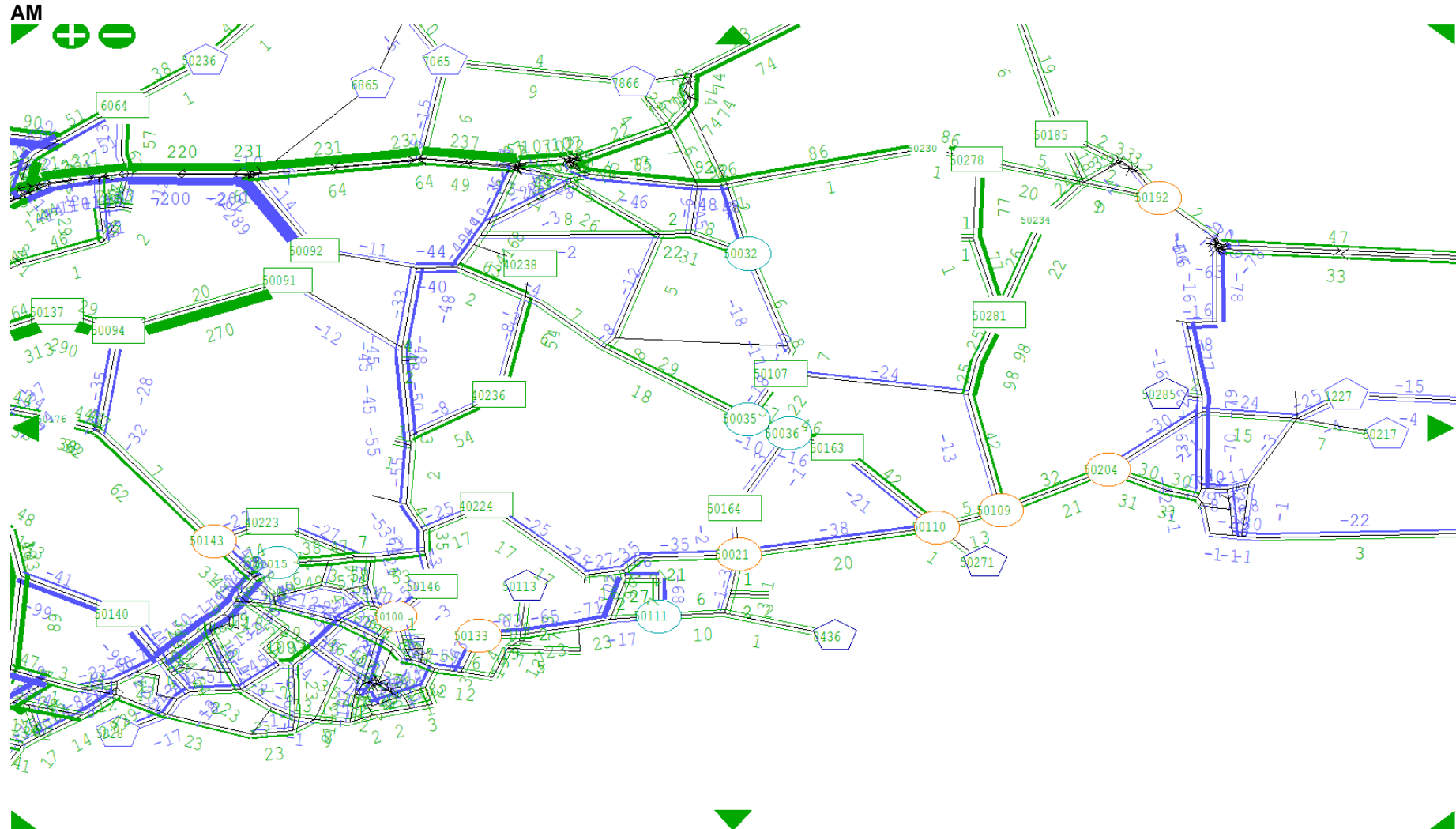


4. Summary

The outputs clearly indicate that the Chichester Local Plan does not have a detrimental or material impact on any of the three junctions. The Chichester Local Plan does not increase flows at the A259 Comet Corner and Oystercatcher junctions and the A27/Nyton Road junction operates within capacity.

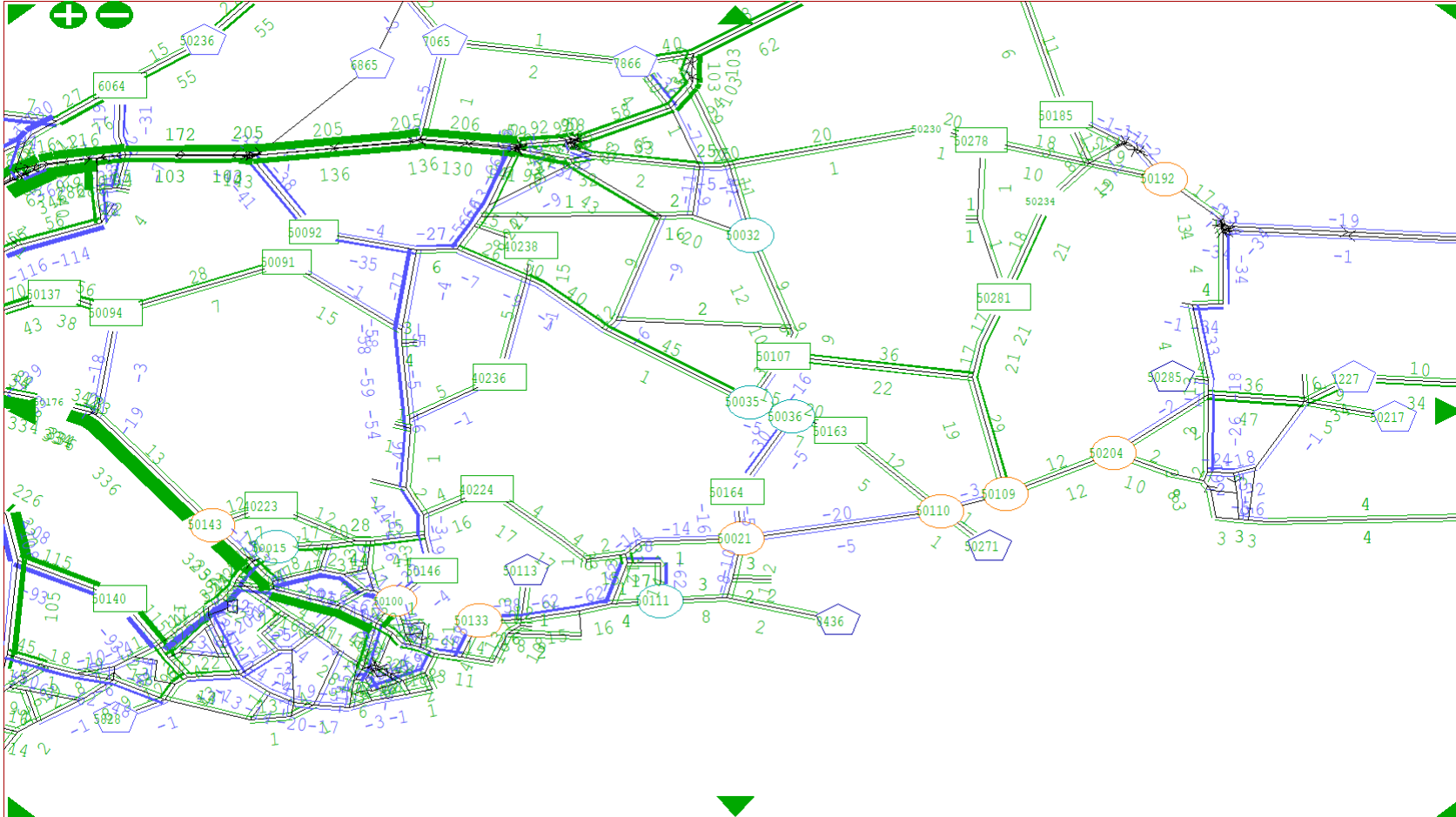
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Appendix A1 -Actual Flows Difference Plots (LP with Mitigation minus Reference Case)



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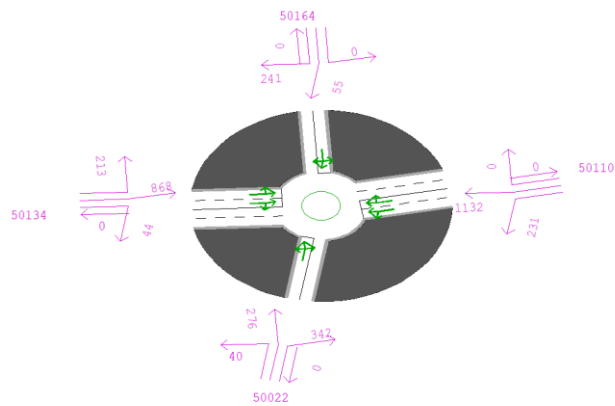
PM



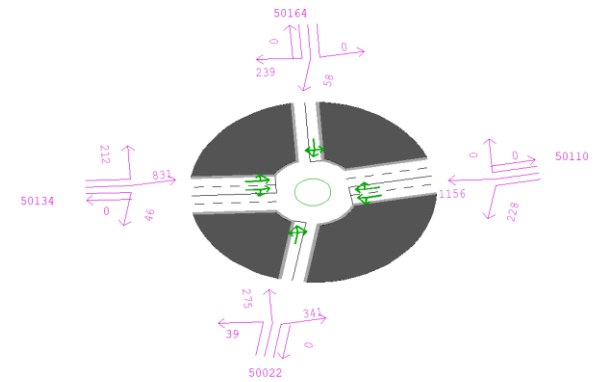
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Appendix A2 - Turning Flow Plots

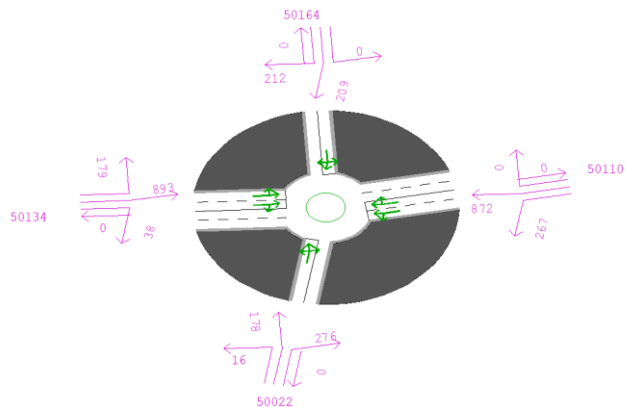
2039 Reference Case AM (B2132/A259)



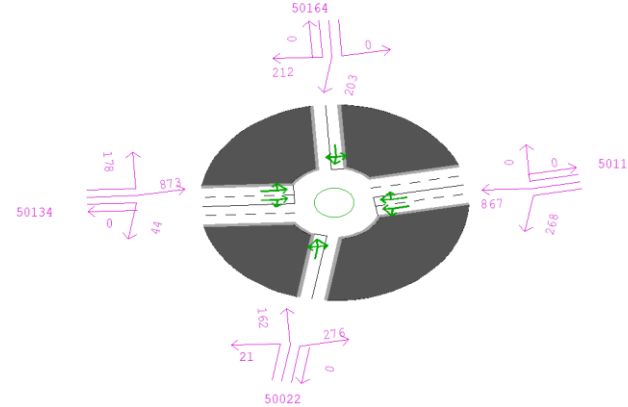
2039 Local Plan with Mitigation AM (B2132/A259)



2039 Reference Case PM (B2132/A259)

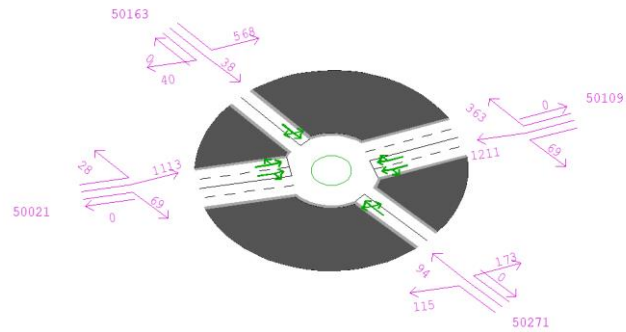


2039 Local Plan with Mitigation PM (B2132/A259)

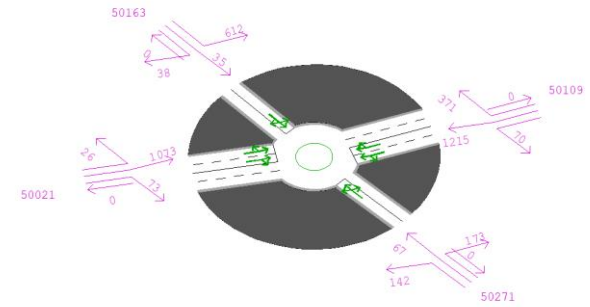


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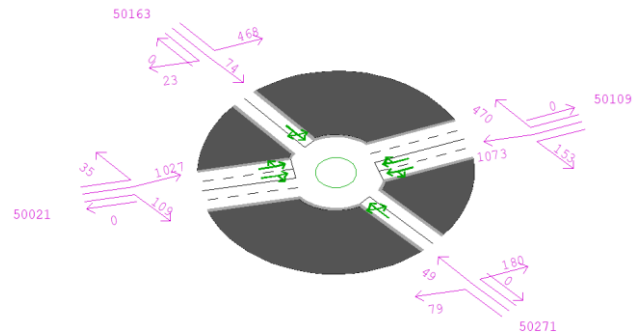
2039 Reference Case AM (Oystercatcher Junction.)



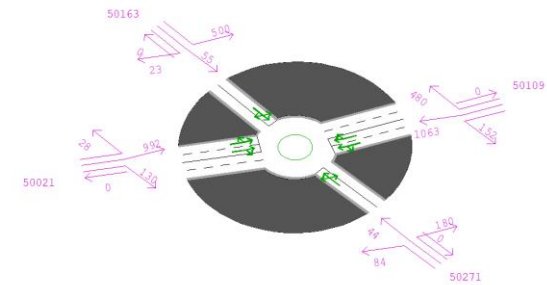
2039 Local Plan with Mitigation AM (Oystercatcher Junction.)



2039 Reference Case PM (Oystercatcher Junction.)

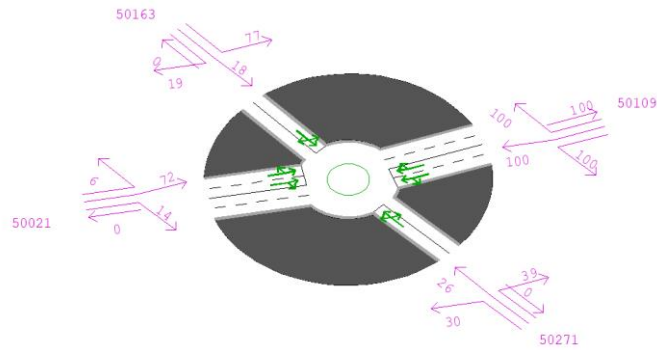


2039 Local Plan with Mitigation PM (Oystercatcher Junction.)

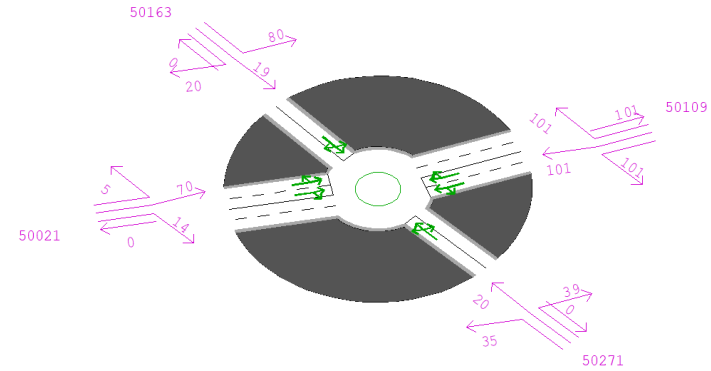

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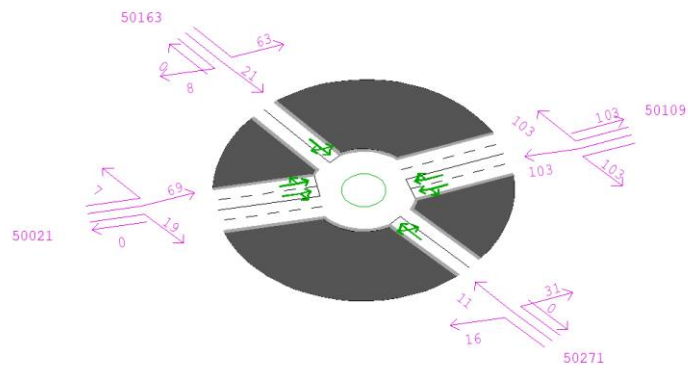
2039 Reference Case AM (Oystercatcher Junction.)



2039 Local Plan with Mitigation AM (Oystercatcher Junction.)



2039 Reference Case PM (Oystercatcher Junction.)



2039 Local Plan with Mitigation PM (Oystercatcher Junction.)

