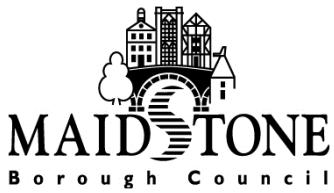


Maidstone Joint Transportation Board



16
October
2019

Maidstone Bridges Gyratory – Post Scheme Monitoring

Decision Making Authority	Kent County Council/Maidstone Borough Council
Lead Director	Simon Jones
Lead Head of Service	Tim Read
Lead Officer and Report Author	Russell Boorman/Lee Burchill
Wards and County Divisions affected	Wards: Maidstone Central/High Street/Bridge/Fant
Which Member(s) requested this report?	Committee

This report makes the following recommendations:

That the report be noted.

Timetable

Meeting	Date
Maidstone Joint Transportation Board	16 October 2019

Maidstone Bridges Gyratory – Post Scheme Monitoring

1. INTRODUCTION AND BACKGROUND

- 1.1 This paper provides a further update in relation to the 'One Year After Opening Report' for the Maidstone Bridges Gyratory scheme submitted to the South East Local Enterprise Partnership (SELEP) which is still being reviewed by an independent evaluator.

2. Pedestrians:

- 2.1 During the survey of traffic data, pedestrian usage was observed following the closure of the existing subways and removal of an 'at grade' controlled pedestrian crossing.
- 2.2 Non-Motorised User (NMU) surveys were carried out during the scheme design to ascertain the requirements for the new 'at grade' crossing positioned at the lower High Street. The design calculated the number of pedestrians predicted to utilise the new crossing.
- 2.3 The central 'pen' area was increased accordingly to a size in excess of 33sqm. This is sufficient to accommodate the number of pedestrians utilising this crossing in peak periods and also includes spare capacity for future growth.
- 2.4 Observations from the survey have identified that **99%** of pedestrians use this facility as it is meant. There is, unfortunately, still 1% of pedestrians who try and cross in an unsafe manner, in contravention of the highway code.
- 2.5 This unsafe practice has not resulted in any incidents involving motorists and is predominately pedestrians crossing the Broadway bridge having ascended the steps from the tow path, where there is clear signage identifying no crossing point.

3. Cyclists:

- 3.1 During the scheme design, assessments were carried out to identify any potential for including cycling provision in, on and around the gyratory system.
- 3.2 Due to safety concerns and practicalities of altering existing structures, an agreement was reached with MBC to retain the existing cycling route using the Medway Street subway which remained open as part of the scheme.
- 3.3 Signage has been improved at the lower High Street to identify the official cycling route.
- 3.4 It was observed that the more experienced cyclists do not use the official cycling provision and remain on the carriageway. It must be noted that if cyclists wish to continue to use the 'on road' option, this scheme was not

designed to detract from this function but to enhance the overall cycling experience for all levels of cyclist.

- 3.5 To date there have been no recorded incidents involving motorists and cyclists.

4. Traffic Data:

- 4.1 As previously reported weekday traffic surveys were carried out on Wednesday 13th March 2019. Weekend surveys were carried out on Saturday and Sunday 16th-17th March 2019.
- 4.2 Surveys were carried out by Automatic Number Plate Report (ANPR) to provide full path information for vehicles using the gyratory. Queue length data was collected by lane at the same time as the ANPRs.
- 4.3 As the traffic signals operate using variable timings to optimise for traffic, traffic signal timing information for each stop line was collected over the survey period.
- 4.4 Analysis of the survey data was carried out to identify the weekday and weekend peak periods. These were:
 - Weekday AM: 07:30 - 08:30
 - Weekday PM: 16:00 - 17:00
 - Saturday: 12:30 - 13:00
 - Sunday: 12:15 - 13:15
- 4.5 Prior to running the LinSig models, a full review of both the existing and proposed models were carried out. This highlighted a number of areas where the models did not reflect the previous or new layout. This is due to alterations made to the alignment during the detailed design process.
- 4.6 There has been a decrease in the number of vehicles using the gyratory system based on the initial 2013 data. This could be attributed to the perception that the system does not perform as expected or indeed the growth in the area has slowed since between 2013 and 2019 and TEMPRO growth figures used in the 2019 assessments are now nationally lower than used in 2013. Appendix A shows the flow matrices in Passenger Car Units (PCU's).
- 4.7 It is therefore concluded that the gyratory system operates in a similar nature to that 'without scheme' with minor improvements for vehicles travelling in a northern direction towards the M20.
- 4.8 The LinSig models for both the 'no scheme' and 'with scheme' scenarios were updated to include the revised 2019 predicted 'no scheme' traffic flows and each model was optimised retaining the cycle times used in each case.

4.9 Practical Reserve Capacity

The table below gives the Practical Reserve Capacity (PRC) results from the LinSig models:

Period	No Scheme			Scheme		
	2013 (Observed)	2019 (Observed)	2019 (Growthed)	2013 (Observed)	2019 (Observed)	2019 (Growthed)
AM	-2.6%	7.3%	-10.9%	-10.9%	-3.8%	-18.7%
PM	-1.7%	6.3%	-7.9%	14.2%	1.2%	23.1%

Practical Reserve Capacity Results

- 4.9.1 PRC is a measure of how well a junction operates based on the operation of the worst performing lane in one scenario. The higher the percentage, the more capacity is available for additional traffic. A negative percentage indicates the junction is operating at or over capacity.
- 4.9.2 As can be seen from the above table, in 2019 the scheme operates with a similar reserve capacity to the 2013 'without scheme' model.

5.0 Conclusion:

- 5.1 On the whole the Maidstone Bridges Gyratory has been a success. Since opening there have been very few negative comments. The system continues to be monitored and minor adjustments to the traffic signal timings made where necessary to maximise its' performance.
- 5.2 The purpose of the 'One Year After Opening Report' is to provide the full picture of the scheme delivery and not just concentrate on one element of the project.
- 5.3 Benefits for the local community as well as the travelling public have been realised through the construction of this scheme.
- 5.4 Full results can be seen in **Appendix C and D** – Gyratory (Existing) & (Proposed) Basic Results Summary, **Appendix B** LinSig Matrices, **Appendix A** Peak Hour Analysis.