# MAIDSTONE JOINT TRANSPORTATION BOARD MEETING

Date: Wednesday 16 October 2019

Time: 5.00 pm

Venue: Town Hall, High Street, Maidstone

Membership:

Councillors Bird, Brindle, Brown, D Burton (Chairman), Carter, Chittenden,

Clark, Cooke, Cooper, Cuming, Daley, Hinder, Hotson,

Kimmance, Powell, Prendergast, T Sams, Stockell, Wilby and

Wilson

The Chairman will assume that all Members will read the reports before attending the meeting. Officers are asked to assume the same when introducing reports.

#### **AGENDA**

Page No.

- 1. Apologies for Absence
- 2. Notification of Substitute Members
- 3. Urgent Items
- 4. Notification of Visiting Members
- 5. Disclosures by Members and Officers
- 6. Disclosures of Lobbying
- 7. To consider whether any items should be taken in private because of the possible disclosure of exempt information
- 8. Minutes of the Meeting Held on 10 July 2019

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- 9. Presentation of Petitions (if any)
- 10. Questions and answer session for members of the public (if any)
- 11. Maidstone Joint Transportation Board Work Programme

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- 12. Verbal Update M2 Junction 5/A246
- 13. Verbal Update M20 Safety

**Issued on Tuesday 8 October 2019** 

**Continued Over/:** 

Alison Broom, Chief Executive

Alisan Brown



| 14. | New Lower Thames Crossing                      | 10 - 15   |
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| 15. | Thameslink Route Update                        | 16 - 21   |
| 16. | A20 Harrietsham Highway Improvements           | 22 - 24   |
| 17. | Bridges Gyratory Post-Scheme Monitoring Report | 25 - 116  |
| 18. | Verbal Update - Leeds Langley Relief Road      |           |
| 19. | Maidstone Integrated Transport Package (MITP)  | 117 - 121 |
| 20. | Maidstone Highway Works Programme              | 122 - 146 |

#### **PUBLIC SPEAKING AND ALTERNATIVE FORMATS**

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In order to speak at this meeting, please contact Democratic Services using the contact details above, by 5 p.m. one clear working day before the meeting (i.e. Monday 14 October 2019). If asking a question, you will need to provide the full text in writing. If making a statement, you will need to tell us which agenda item you wish to speak on. Please note that slots will be allocated on a first come, first served basis.

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#### **MAIDSTONE BOROUGH COUNCIL**

#### MAIDSTONE JOINT TRANSPORTATION BOARD

## MINUTES OF THE MEETING HELD ON WEDNESDAY 10 JULY 2019

**Present:** Councillors Bird, Brindle, Brown, D Burton

(Chairman), Carter, Chittenden, Clark, Cooke, Cooper,

Cuming, Daley, Mrs Gooch, Hinder, Hotson, Kimmance, Prendergast, Wilby and Wilson

Also Present: Councillors Adkinson and Harper

#### 107. AMENDMENT TO THE ORDER OF BUSINESS

#### **RESOLVED:** That:

- 1. Item 13. 20 MPH Policy Review be considered before Item 12. Reference from Maidstone Borough Council: Implementation of a 20 MPH Speed Limit in Fant.
- 2. Item 18. Objections to Traffic Regulation Orders be considered before Item 14. Verbal Update Leeds Langley Relief Road.

#### 108. APOLOGIES FOR ABSENCE

Apologies for absence were received from:

- Councillor T Sams
- Councillor Powell
- Councillor Stockell

Apologies for lateness were received from Councillor Carter.

#### 109. NOTIFICATION OF SUBSTITUTE MEMBERS

It was noted that Councillor Gooch was substituting for Councillor T Sams.

#### 110. URGENT ITEMS

The Chairman informed the Board that he had decided to accept a report on Objections to Traffic Regulation Orders as an urgent item. The Chairman explained that the reason for urgency was that a recommendation was required from the meeting in order to ensure that projects were not delayed.

The Chairman informed the Board that he had agreed to take an urgent update to Item 15. Maidstone Integrated Transport Package (MITP). The reason for urgency was that Appendix 7 was referenced in the covering report. Therefore, the appendix needed to be made publicly available to ensure transparency.

#### 111. NOTIFICATION OF VISITING MEMBERS

It was noted that Councillors Harper and Adkinson were present as Visiting Members, and indicated that they wished to speak on:

- Item 12. Reference from Maidstone Borough Council: Implementation of a 20 MPH Speed Limit in Fant.
- Item 13. 20 MPH Policy Review.
- Item 15. Maidstone Integrated Transport Package (MITP).
- Item 16. B2246 Hermitage Lane/A26 Tonbridge Road Project.

#### 112. DISCLOSURES BY MEMBERS AND OFFICERS

There were no disclosures by Members or Officers.

#### 113. DISCLOSURES OF LOBBYING

Councillor Prendergast stated that she had been lobbied on Item 11. Maidstone Joint Transportation Board Work Programme.

Councillors Bird and Hinder stated that they had been lobbied on Item 12. Reference from Maidstone Borough Council: Implementation of a 20 MPH Speed Limit in Fant.

All Councillors stated that they had been lobbied on Item 15. Maidstone Integrated Transport Package (MITP).

Councillors Gooch, Hotson, Bird, Kimmance and Daley stated that they had been lobbied on Item 16. B2246 Hermitage Lane/A26 Tonbridge Road Project.

Councillor Burton stated that he had been lobbied on Item 18. Objections to Traffic Regulation Orders.

## 114. TO CONSIDER WHETHER ANY ITEMS SHOULD BE TAKEN IN PRIVATE BECAUSE OF THE POSSIBLE DISCLOSURE OF EXEMPT INFORMATION

**RESOLVED:** That all items be taken in public as proposed.

#### 115. MINUTES OF THE MEETING HELD ON 17 APRIL 2019

**RESOLVED:** That the minutes of the meeting held on 17 April 2019 be approved as a correct record and signed.

#### 116. PRESENTATION OF PETITIONS (IF ANY)

There were no petitions.

## 117. QUESTIONS AND ANSWER SESSION FOR MEMBERS OF THE PUBLIC (IF ANY)

There were no questions from members of the public.

#### 118. MAIDSTONE JOINT TRANSPORTATION BOARD WORK PROGRAMME

The Democratic Services Officer explained that Item 18. Objections to Traffic Regulation Orders had been accepted as an urgent item. The item was therefore to be removed from the Work Programme.

The Board requested that Highways England be invited to attend the next meeting on 16 October 2019 to speak on:

- "M2 J5/A249"
- "Proposed Improvements to A229/A249 links between the M2/A2 and M20 Corridors"
- "M20 Safety Report"

**RESOLVED:** That the Committee Work Programme be noted, as amended.

#### 119. 20 MPH POLICY REVIEW

The Planning Projects and Delivery Manager outlined that the report provided an executive summary of the Kent County Council (KCC) 20mph Policy Review. This had been undertaken in response to guidance issued by Central Government. KCC planned to conduct research pilots, at various sites within the County, to trial innovative approaches such as centre line removal, bus build-outs, on street parking bay modifications and gateway features. It was stated that once the pilot schemes had been operated for a period of twelve months, a report was to be submitted to the KCC Environment and Transport Cabinet Committee. An update could then be provided to the Maidstone Joint Transportation Board (MJTB).

Councillors Harper and Adkinson spoke on this item as Visiting Members.

The Board commented that it welcomed the use of less intrusive speed reduction approaches.

In response to questions from the Board, Officers explained that:

- Potential pilot schemes were to be submitted to KCC via email. The email address was to be circulated to all Members of the MJTB outside of the meeting.
- The final number of pilot schemes was dependent on the schemes that were suggested and the availability of match funding that could be provided, such as Member grants.
- The potential introduction of 20mph speed limits on new residential developments was to be considered during the Local Plan Review, as this required a policy change. This was being undertaken by MBC.

**RESOLVED:** That the Kent County Council's 20mph policy review be noted.

<u>Note</u>: Councillor Carter arrived at 5.34 p.m. during consideration of this item.

## 120. <u>REFERENCE FROM MAIDSTONE BOROUGH COUNCIL: IMPLEMENTATION</u> OF A 20 MPH SPEED LIMIT IN FANT

Councillor Harper introduced the item as a Visiting Member.

The Board commented that there had been a longstanding demand for 20mph speed limits in Fant. It was noted that all potential 20mph pilot schemes were to be submitted to KCC via email and that the selection process for pilot schemes did not require endorsement from the MJTB. Therefore, it was not prudent for the Board support the Fant pilot scheme as this had the potential to lead to further unnecessary endorsement requests.

**RESOLVED:** That the report be noted.

#### 121. OBJECTIONS TO TRAFFIC REGULATION ORDERS

The Operations Engineer explained to the Board that the report identified proposed Traffic Regulation Orders (TROs) that had received objections during formal consultation.

Councillor Tippen (Marden Parish Council) made a statement on this item.

The Board commented that although the Pattenden Lane proposal had received a number of objections, failing to proceed with the proposal condoned the contravention of Highways Code Rule 243. This rule stated that vehicles must not stop opposite or within 10 metres of a junction, except in an authorised parking space or when forced to do so by stationary traffic.

**RESOLVED:** That the Joint Transportation Board recommends to the Strategic Planning and Infrastructure Committee and Kent County Council as the Highway Authority that the proposals for:

- 1. West End are not proceeded.
- 2. Pattenden Lane are proceeded.
- 3. Church Green are proceeded.
- 4. High Street are proceeded.
- 5. Sovereign Way are proceeded.
- 6. Sutton Forge are proceeded.
- 7. Albion Road are proceeded.
- 8. Chantry Road are proceeded.

Voting: Unanimous

#### 122. VERBAL UPDATE - LEEDS LANGLEY RELIEF ROAD

The Senior Major Capital Programme Project Manager informed the Board that surveys had been completed in 2018. The data had been collected and validated, and a final report was to be submitted to the MJTB in October 2019.

**RESOLVED:** That the update be noted.

#### 123. MAIDSTONE INTEGRATED TRANSPORT PACKAGE (MITP)

The Senior Major Capital Programme Project Manager described each of the schemes within the Maidstone Integrated Transport Package (MITP). The Board was informed that public consultation was to commence in September 2019. A single consultation page was to be used for the whole package of work, which aimed to give consultees a greater understanding of the wider context of the scheme. Following an anticipated contract award in early 2020, construction was planned to commence in April 2020.

Councillor Harper spoke on this item as a Visiting Member.

#### A20 Coldharbour Roundabout

The Board commented that it was positive that a large section of the A20 Coldharbour Roundabout was to be built offline, as this reduced the need for lengthy diversions.

In response to questions from the Board, the Senior Major Capital Programme Project Manager replied that:

- The potential to implement part-time signalisation at the roundabout was being explored as part of the detailed scheme design.
- The purchase of third-party land had significantly reduced the risk associated with the scheme.

#### A229 Loose Road Corridor

Following questions from the Board, the Senior Major Capital Programme Project Manager confirmed that:

- The implementation of a signalised lozenge roundabout at the A229 Loose Road/A274 Sutton Road scheme achieved a capacity benefit beyond the original target of 2031.
- The acquisition of the Wheatsheaf Pub was underway, which significantly reduced the risk associated with the scheme.
- The detailed scheme design allowed for planting and environmental screening to be introduced. This was to be included in the consultation process.
- Although Cranbourne Avenue was to be closed at the junction, plans to enhance the street environment for residents who used the road had been included.
- Traffic from Shepway had safe passage to another junction in the Loose Road Corridor, despite the closure of Cranbourne Avenue.
- A fibreoptic link between the signals in the Loose Road Corridor was to be established. This ensured that the phasing of lights allowed a better flow of traffic.

#### A20 Ashford Road/Willington Street

The Board commented that this was a vital infrastructure scheme. Although there was a risk of an objection to the planning application due to the removal of vegetation, the plans to reinstate the vegetation at an appropriate location were acknowledged.

The Senior Major Capital Programme Project Manager informed the Board that construction of this scheme was planned for between September and October 2020.

#### A274 Sutton Road/Willington Street & Wallis Avenue

The Board noted that the scheme only achieved capacity benefits until 2021.

The Senior Major Capital Programme Project Manager said that:

- The proposal combined elements of schemes considered by the MJTB in 2015 and 2018.
- A dedicated right-turn into the petrol filling station to the East was included in the scheme.
- The proposal widened roads into the grass verge, however, the relocation of the southern bus stop allowed for the implementation of an improved planting scheme at the site.
- The acquisition of third-party land was required to widen Willington Street, in order to achieve improved capacity benefits.
- The cost of the scheme was increased by the number of utilities located in the grass meadow at Bell Meadow, which needed to be diverted.

**RESOLVED:** That the report be noted.

<u>Note</u>: Councillors Wilson, Brown and Gooch left during consideration of this item.

Note: The meeting was adjourned from 7.01 p.m. to 7.10 p.m.

#### 124. B2246 HERMITAGE LANE/A26 TONBRIDGE ROAD PROJECT

The Senior Major Capital Programme Project Manager explained that the scheme had been removed from the MITP due to a lack of demonstrable benefits and value for money. It was stated that several scheme options had been considered, however, these only provided a capacity benefit of between three and five years. Therefore, the report recommended that the current options for the B2246 Hermitage Lane/A26 Tonbridge Road Project were not progressed.

Councillors Harper and Adkinson spoke on this item as Visiting Members.

The Board commented that there was pressure for residential development in the Local Plan. It was stated that planning applications benefitted from a joined-up response from KCC and MBC, which effectively explained how infrastructure mitigations were to be delivered. If mitigations were undeliverable, then a joined-up response to explain why a development was not viable was required.

In response to questions from the Board, the Senior Major Capital Programme Project Manager said that:

 A double roundabout at the A26 Tonbridge Road/Fountain Lane junction achieved an improved capacity benefit, however, this required the purchase of third-party land. It was possible to use a Compulsory Purchase Order (CPO), however, this was a lengthy process to undertake.

- The scheme was funded by S106 monies, however, there was a shortfall and further development was required in order to fully fund the scheme through S106 monies.
- A Working Group had been established to explore options for improving the junction. This consisted of Officers and Councillors Daley, Vizzard, Kimmance, Gooch and Bird.

**RESOLVED:** That the report be noted.

#### 125. MAIDSTONE HIGHWAY WORKS PROGRAMME

**RESOLVED:** That the report be noted.

#### 126. <u>DURATION OF MEETING</u>

5.02 p.m. to 8.32 p.m.

# Agenda Item 11

## Maidstone Joint Transportation Board Work Programme

| Ref | Date to MJTB | Report Title                                    | Report<br>Author   | Lead<br>Authority | Notes | Date of<br>Request                           |
|-----|--------------|---|--------------------|-------------------|-------|--|
| 1   | TBC          | Establishment of a<br>Public Transport<br>Forum | Phil<br>Lightowler | KCC               |       | Requested<br>by Cllr Bird<br>on:<br>03/06/19 |

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## **Maidstone Joint Transportation Board**





16 October 2019

# A229 and A249 links between M2 and M20 with the proposed new Lower Thames Crossing

| Decision Making Authority              | Kent County Council  |  |  |
|--|--|--|--|
| Lead Director                          | Simon Jones, Director of Highways,<br>Transportation and Waste   |  |  |
| Lead Head of Service                   |  |  |  |
| Lead Officer and Report<br>Author      | Joseph Ratcliffe, Transport Strategy Manager   |  |  |
| Wards and County Divisions affected    | Wards affected: Boxley, Aylesford North and Walderslade, Burham and Wouldham, Detling and Thurnham, North Downs. |  |  |
|  | County Divisions affected: Maidstone Rural North, Malling North East, Maidstone Rural East.                      |  |  |
| Which Member(s) requested this report? | Cllr Bird  |  |  |

#### This report makes the following recommendations:

That the report be noted.

| Timetable                            |                 |
|--------------------------------------|-----------------|
| Meeting                              | Date            |
| Maidstone Joint Transportation Board | 16 October 2019 |

# A229 and A249 links between M2 and M20 with the proposed new Lower Thames Crossing

#### 1. ORIGIN OF REPORT

1.1 Report requested by Cllr Bird.

#### 2. PURPOSE OF REPORT AND EXECUTIVE SUMMARY

- 2.1 Cllr Bird requested a report on the proposed improvements to the A229 and A249 links between the M2/A2 and M20 corridors taking into account the additional traffic expected as a result of the proposed new Lower Thames Crossing.
- 2.2 This report summarises the work of Kent County Council (KCC) to address the issue and presents three options to continue to make the case for improvements to the A229 and A249 as a result of the increase in traffic from the proposed new Lower Thames Crossing. These options involve continuing to make the case to the Department for Transport (DfT) and Highways England for inclusion of improvements to these links between the two motorway corridors as part of the Lower Thames Crossing project, or to be delivered through the next Road Investment Strategy (RIS2) in the period 2020 to 2025. A third options requires KCC to continue to fund, at risk of no certainty of further development funding or funding for delivery, the development of a Strategic Outline Business Case (SOBC) which will increase the chance of success in bidding for funding in future rounds of the Large Local Major (LLM) scheme programme, i.e. for the post 2025 period. This option does, however, also require 15% local contribution to total capital scheme costs.
- 2.3 KCC continues to progress all three options, while recognising the limitations of each. KCC acknowledges that the option of developing an SOBC has the greatest chance of securing funding in the future.
- 2.4 The Committee is asked to note the report on the work being done.

#### 3. INTRODUCTION AND BACKGROUND

- 3.1 Cllr Bird requested a report on the proposed improvements to the A229 and A249 links between the M2/A2 and M20 corridors taking into account the additional traffic expected as a result of the proposed new Lower Thames Crossing. This report summarises the work of Kent County Council (KCC) to address this issue.
- 3.2 Highways England is progressing the development of a new Lower Thames Crossing (tunnel) to the east of Gravesend linking to the A2 near the existing 'Gravesend East' junction. The scheme also includes the widening of the A2 between the 'Gravesend East' junction and Junction 1 of the M2. Highways England plan to submit a Development Consent Order (DCO) to the Planning Inspectorate in summer 2020. If the DCO is granted, and

- subject to funding, the scheme would be open to traffic in 2027. Further information on Highways England's scheme can be found at <a href="https://highwaysengland.co.uk/lower-thames-crossing-home/">https://highwaysengland.co.uk/lower-thames-crossing-home/</a>
- 3.3 Highways England's Lower Thames Crossing project does not include any wider network improvements to the Strategic Road Network (SRN) in Kent beyond the widening of the A2 between the 'Gravesend East' junction and Junction 1 of the M2. The project is also not delivering any local road network improvements in Kent beyond those that are directly required for scheme, i.e. there are proposed new link roads around the 'Gravesend East' junction with the A2 due to the reconfiguration of this junction to accommodate the new junction of the Lower Thames Crossing and the A2.
- 3.4 Highways England has stated that any wider SRN improvements will need to be delivered through the Road Investment Strategy (RIS), the second of which (RIS2) will be set by the Department for Transport (DfT) this autumn for the period 2020 to 2025. Highways England has also stated that any local road network improvements will need to be delivered by the Local Highway Authority, i.e. KCC.
- 3.5 KCC has therefore made numerous representations to the DfT and Highways England through consultations on the development of the priorities for RIS2. Several letters to Ministers and the Secretary of State have also been sent by KCC's Leader and the responsible Cabinet Member. Several Kent MPs have also written letters. In summary, KCC's position on the wider network improvements that are essential alongside the proposed new Lower Thames Crossing, include the following:
  - Improvements to the A229 and its junctions with the M2 (Junction 3) and the M20 (Junction 6) as the shortest link between the two motorway corridors. An earlier proposal by the DfT included upgrades to this link as one of the options for the Lower Thames Crossing project (the Option C variant) but it was dropped from the project when the east of Gravesend route (Option C) was announced as the preferred route option. KCC supported the Option C variant and has continued to make the case for its inclusion in the project.
  - Improvements to the A249 and its junctions with the M2 (Junction 5 improvements for which are being delivered through RIS1) and the M20 (Junction 7) as another vital link between the two motorway corridors to provide additional resilience.
  - Improvements to the M2/A2 corridor from the new Lower Thames
     Crossing to Dover, including additional capacity on the M2 between
     junctions 4 and 7, improvements to the interchange between the M2
     and A2 at M2 Junction 7 (Brenley Corner) and the completion of the
     dualling of the A2 from Lydden to Dover.
- 3.6 All of the above are stated as strategic priorities in KCC's Local Transport Plan 4: Delivering Growth without Gridlock (2016-31)

  https://www.kent.gov.uk/ data/assets/pdf file/0011/72668/Local-transport-plan-4.pdf
  . They are also stated as priorities for RIS2 for the newly emerging Sub-National Transport Body (STB) Transport for the South East (TfSE) and were submitted to the DfT as part of the evidence gathering process for the development of RIS2.

3.7 As well as submissions to Highways England and DfT to inform priorities for RIS2, KCC has also continued to make the case for the Lower Thames Crossing project to deliver the required wider network improvements. In KCC's response to the statutory consultation on the proposed Lower Thames Crossing in December 2018, as part of its review of the traffic model, it stated that:

#### For the A229:

- "In 2026, the introduction of the LTC is forecast to increase traffic flows on this corridor during both peak hours, particularly between Maidstone and the M2. In 2041, the Lower Thames Crossing is forecast to generally increase traffic flows on the A229, again between Maidstone and the M2 in the AM peak, but a combination of increases and decreases in the PM peak.
- As would be expected, because the A229 is the most direct link between the M20 and M2, Heavy Goods Vehicle (HGV) flows are substantially increased in the AM and PM peaks. On Blue Bell Hill this is an increase of 118 HGVs in the AM peak and 139 in the PM peak in 2026, growing to 179 in the AM peak in 2041. This increase in traffic places more pressure on the capacity of the A229 at Blue Bell Hill.
- However, the data hides the problems with the junctions at either end (M20 Junction 6 and M2 Junction 3) that cause delays and blockages on the network, causing queues and congestion."

#### For the A249:

- "As with the A229 corridor, being a key route between the two motorway corridors means that two-way traffic flows are expected to increase on the A249 in both peaks in both 2026 and 2041.
- However, HGV flows are expected to generally decrease on the A249, albeit in very small absolute numbers (up to 3 HGVs in the AM peak and 6 in the PM peak by 2041). This is surprising and suggests that HGVs are either re-routing completely to the M2/A2 corridor further east or using the A229 and A228 as shorter routes between the motorways."
- 3.8 Further analysis is currently underway with a cordon of the Lower Thames Crossing Area Model (LTAM) made available by Highways England to KCC, which will help to inform KCC's further submissions as part of the DCO planning process. This work will also help to inform scheme development for the local road network to enable KCC to make the case for mitigation measures needed as a result the new Lower Thames Crossing.
- 3.9 The announcement by DfT of the Major Road Network (MRN), i.e. the busiest local authority 'A' roads, which includes the A229 and A249, also presents an opportunity for KCC to bid for funding to deliver improvements if they are prioritised in a top 10 list for the whole South East by TfSE. The scale of any improvement works needed on the A229 or A249 exceeds the

£50 million threshold for MRN scheme funding, therefore they would need to be funded through the Large Local Major (LLM) scheme fund. TfSE have been instructed by DfT to prioritise two or three schemes from the whole of the South East for LLM funding in the period 2020 to 2025. KCC submitted a bid for LLM scheme funding for the A229 and is currently working to develop a Strategic Outline Business Case (SOBC). However, due to the scheme being at an early stage of its business case development, it was not prioritised by TfSE in its top three for delivery in the 2020-25 period, therefore it is likely that it will only be considered for funding in a later programme, i.e. post 2025.

- 3.10 KCC are therefore pursuing the following options:
- 3.11 Option 1: KCC continues to make the case to the DfT and Highways England that improvements to the A229 and A249 are included as part of the Lower Thames Crossing project. This is likely to be rejected by the DfT and Highways England as it has been so far.
- 3.12 Option 2: KCC continues to make the case to the DfT and Highways England that improvements to the A229 and the A249 are included in the next Road Investment Strategy (RIS2) for the period 2020-25. Although works to the associated motorway junctions (M2 Junction 3 and M20 Junction 6 for the A229 and M2 Junction 5 [already committed in RIS1] and M20 Junction 7 for the A249) may be part of RIS2, which is due to be announced by DfT this autumn, the A229 and A249 are part of the local road network and are the responsibility of KCC. In response to a consultation on the future of the Strategic Road Network (SRN), KCC did make the case for these roads to be trunked and added to Highways England's network due to the strategic function that they perform in connecting motorways. However, trunking the A229 and A249 was rejected by DfT as they are not seeking to expand the SRN at this time.
- 3.13 Option 3: KCC continues to develop potential schemes to improve the A249 and A229 at risk, as there is no funding stream for scheme development or any funding for scheme delivery. The Strategic Outline Business Case (SOBC) for an A229 scheme requires revenue funding to further its development and it has not been prioritised as a top three scheme in the South East by Transport for the South East (TfSE) (largely as a result of its early stage of scheme development), therefore it is unlikely to be funded in the 2020 to 2025 period. It is however being developed as a pipeline project for post 2025. LLM schemes also require 15% local contribution (local authority and/or developer) as match funding, therefore contributions from development need to be secured before any improvement project could proceed.
- 3.14 All three options will continue to be progressed, noting their limitations. Option 3 represents the greatest chance of success, as by developing a Strategic Outline Business Case (SOBC), the chances of being prioritised for the next programme of Large Local Major (LLM) scheme funding, post 2025, are increased if the scheme is developed to SOBC stage. Funding for delivery however, would depend on it being developed to Outline Business Case (OBC) with release of funding only guaranteed on competition of Full Business Case (FBC) and 15% local contribution.

#### 4. AVAILABLE OPTIONS

4.11 This report is for information only.

#### 5. PREFERRED OTION AND REASONS FOR RECOMMENDATION

5.1 The Committee is asked to note this report on the work to progress improvements to the A229 and A249 links between the M2/A2 and M20 corridors taking into account the additional traffic expected as a result of the proposed new Lower Thames Crossing.

#### 6. REPORT APPENDICES

6.1 N/A

#### 7. BACKGROUND PAPERS

- 7.1 Lower Thames Crossing position statement (2018 statutory consultation) <a href="https://www.kent.gov.uk/about-the-council/strategies-and-policies/transport-and-highways-policies/lower-thames-crossing-position-statement">https://www.kent.gov.uk/about-the-council/strategies-and-policies/transport-and-highways-policies/lower-thames-crossing-position-statement</a>
- 7.2 Lower Thames Crossing Development Consent Order Consultation 2018
  Response from Kent County Council

  <a href="https://www.kent.gov.uk/">https://www.kent.gov.uk/</a> data/assets/pdf\_file/0010/89785/Kent-County-Council-Response-to-Lower-Thames-Crossing-Consultation-2018-FINAL.pdf
- 7.3 KCC response to the Department for Transport's 'Shaping the Future of England's Strategic Roads' consultation on Highways England's 'Strategic Road Network Initial Report' Item 8 Environment and Transport Cabinet Committee 31 January 2018

  <a href="https://democracy.kent.gov.uk/documents/g7548/Public%20reports%20pack%2031st-Jan-2018%2010.00%20Environment%20Transport%20Cabinet%20Committee.pdf?T=10">https://democracy.kent.gov.uk/documents/g7548/Public%20reports%20pack%2031st-Jan-2018%2010.00%20Environment%20Transport%20Cabinet%20Committee.pdf?T=10</a>

## **Maidstone Joint Transportation Board**





16 October 2019

## **Thameslink Rail Service Delay**

| Decision Making Authority              | Kent County Council                      |
|--|--|
| Lead Director                          | Katie Stewart                            |
| Lead Head of Service                   | Tom Marchant                             |
| Lead Officer and Report<br>Author      | Stephen Gasche                           |
| Wards and County Divisions affected    | All Maidstone Wards and County Divisions |
| Which Member(s) requested this report? | Mr Ian Chittenden                        |

#### This report makes the following recommendation:

That the report be noted.

| Timetable                            |                 |  |  |
|--------------------------------------|-----------------|--|--|
| Meeting                              | Date            |  |  |
| Maidstone Joint Transportation Board | 16 October 2019 |  |  |

### **Thameslink Rail Service Delay**

#### 1. ORIGIN OF REPORT

1.1 This original report was requested by Mr Ian Chittenden on 24 August 2019 in response to concerns of a further delay to the new Thameslink service between Maidstone East, London and Cambridge, and was taken to the Maidstone Business Forum prior to being updated to this report for the Maidstone Joint Transportation Board.

#### 2. PURPOSE OF REPORT AND EXECUTIVE SUMMARY

2.1 This report sets out the latest developments relating to the further deferral of the introduction of the new Thameslink service between Maidstone East, London and Cambridge.

#### 3. INTRODUCTION AND BACKGROUND

- 3.1 There have been persistent delays to the introduction of this service since the Department for Transport (DfT) agreed to Kent County Council's (KCC) request in 2014 to have the Kent terminus for this branch of the new Thameslink network transferred from its original terminus of Tunbridge Wells to Maidstone East.
- 3.2 The original date proposed for its introduction was January 2018, although this was initially to have been a peak-only service. This date was then deferred to May 2018, but with the benefit of an all-day service on Monday to Saturday, and so was widely welcomed. We then had a further deferral to December 2018, and then last year the latest deferral to December 2019 as part of a scaling back of the delivery schedule for the whole Thameslink programme following the debacle of the introduction of the May 2018 timetable across the wider Thameslink network.
- 3.3 Kent County Council wrote to Mr Jo Johnson MP, who was then the Minister of State responsible for rail services at the DfT, urging him to consider the adverse impact on Kent's rail passengers and the local economy of any further deferral of the Thameslink programme in Kent.
- 3.4 While Mr Johnson's reply was non-committal, County Councillor Mr Rob Bird subsequently received a more positive response to his letter to the then Transport Secretary, Mr Chris Grayling, which confirmed that:
  - "... from December 2019, new Thameslink services between Maidstone East and Cambridge will also provide an extra two trains per hour in each direction all day".
- 3.5 Despite this reassurance from the former Transport Secretary last year, however, there have been persistent fears within the rail industry of a further delay to the Maidstone East service. These fears have arisen from the overall delay to the introduction of each branch of the wider Thameslink network across south-east England.

- 3.6 These fears have now proved to be well founded, as a joint letter from Govia Thameslink Railway (GTR) and Network Rail (NR) to affected MPs and local authorities dated 19 September 2019 stated:
  - "...Guaranteeing the stability and reliability of services is now at the heart of all major improvement projects. We are united in our belief that we can never subject passengers to the same level of disruption ever again, and this has had a considerable effect on all subsequent timetable changes. Despite all our efforts, this means that we have had to take the regrettable decision that the Maidstone East Thameslink services cannot start operation in December 2019 as previously advised without seriously compromising reliability".
- 3.7 While recognising the "immense disappointment" that this decision will cause to rail passengers throughout the route to be served, the letter remains non-committal in respect of any definite start date for the new service:
  - "...We want to state our full commitment to finding a reliable and sustainable solution that will work for the people of Kent and this work has been and will continue to be given our highest priority. We want to thank you for your continued understanding and want to keep working with you, and the rest of the industry, to find a way through this.

We will keep you updated on any further developments and would be happy to explain the situation in more detail, so please don't hesitate to contact us if it would be helpful to have a wider discussion about this".

- 3.8 In response, Mr Mike Whiting, KCC Cabinet Member for Planning, Highways, Transport & Waste, wrote on behalf of all affected County Members to Mr Chris Heaton-Harris, the Minister of State at the DfT with responsibility for rail policy. This letter expressed the grave concern felt by local partners and communities at the further deferral of the new Thameslink service to Maidstone East and reminded the Minister that this was actually the fourth such deferral and was completely unacceptable. An urgent meeting with the Minister has therefore been requested, to which other members and representatives from GTR and NR would also be invited. We await an early reply.
- 3.9 Both Kent County Council and Maidstone Borough Council have continuously reiterated the fact that any further delay to the delivery of the promised Thameslink service to Maidstone East beyond December 2019 would be completely unacceptable, as many residents and businesses have made location decisions based on earlier information about the planned date of the Thameslink service on this route. It is to be hoped that the new rail minister will realise this and act accordingly.

#### 4. AVAILABLE OPTIONS

4.1 The Cabinet Member for Planning, Highways, Transport & Waste has requested to meet with the new Minister of State responsible for rail policy, and to invite other members, together with representatives from the appropriate rail industry organisations.

#### 5. PREFERRED OTION AND REASONS FOR RECOMMENDATION

5.1 This is the only viable option at present and is recommended as the next course of action so as to resolve the current impasse.

#### 6. REPORT APPENDICES

- 6.1 Appendix 1 Letter from GTR and NR to MPs and Members dated 19 September 2019.
- 6.2 Appendix 2 Letter from Mr Mike Whiting (KCC) to Mr Chris Heaton-Harris (Minister of State at DfT) dated 27 September 2019.

#### 7. BACKGROUND PAPERS

7.1 None.





19 September 2019

Dear Tom.

We wanted to provide you with an update regarding the Maidstone East Thameslink service.

As you will know, following the introduction of the May 2018 timetable and the serious disruption experienced by passengers, a decision was taken to ensure that any new introduction of services would need to go through more rigorous scrutiny than in the past.

Guaranteeing the stability and reliability of services is now at the heart of all major improvement projects. We are united in our belief that we can never subject passengers to the same level of disruption ever again, and this has had a considerable effect on all subsequent timetable changes. Despite all our efforts, this means that we have had to take the regrettable decision that the Maidstone East Thameslink services cannot start operation in December 2019 as previously advised without seriously compromising reliability.

Adding these services onto an already busy and complex railway network presents a real risk of delay and disruption to the thousands of passengers that rely on our existing train services, and we hope you can understand why we cannot allow this to happen. The entire rail network in the South East is integrated, which means that every change we make can have multiple knock-on effects to other services, all of which need to be worked through and mitigated.

When the commitment to bring the Maidstone East service to London Bridge was made for this December, it was assessed to be achievable. Since then, a number of issues have been highlighted that do not support an introduction at this time. We have been working hard on these requirements and reviewing all other options to introduce the Maidstone East services. We need to be realistic, however, about what we are able to provide, and when. We continue to work together as an industry, in close collaboration with Southeastern and the Department for Transport, to allow for the introduction of these services as soon as practicably possible.

We fully appreciate the immense disappointment that will be felt by you and passengers at this news and that there is a great deal of expectation surrounding the Maidstone East service. We have worked tirelessly to try and find a solution, right up until the last minute.

We want to state our full commitment to finding a reliable and sustainable solution that will work for the people of Kent and this work has been and will continue to be given our highest priority. We want to thank you for your continued understanding and want to keep working with you, and the rest of the industry, to find a way through this.

We will keep you updated on any further developments and would be happy to explain the situation in more detail, so please don't hesitate to contact us if it would be helpful to have a wider discussion about this.

Yours sincerely,

John Halsall

Route Managing Director (South East), Network Rail

Patrick Verwer Chief Executive Officer Govia Thameslink



The Rt Hon Chris Heaton-Harris MP Minister of State for Transport Department for Transport Great Minster House 33 Horseferry Road London SW1P 4DR

Sent by email

Members' Desk Sessions House County Hall Maidstone Kent ME14 1XQ

Tel: 03000 421645

E-mail: members.desk@kent.gov.uk

Your Ref: Our Ref:

Date: 27 September 2019

Tean Minister

Request for Meeting: Effect of De

Request for Meeting: Effect of December 2019 Timetable Deferral of New Thameslink Service to Maidstone East

I am writing to express my grave concern at the further deferral of the new Thameslink service to Maidstone East. I and many other colleagues have received assurances on several occasions that the already delayed service would commence in December 2019, yet once again the residents of Maidstone, Bearsted, West Malling, Borough Green and Otford have been let down.

It is perhaps necessary to remind you that this new Thameslink service was originally due to commence in January 2018. It was then deferred to May 2018, then to December 2018, then to December 2019, and now to an unknown date in the future. I am sure you will agree that this continual deferral of a much-needed rail service and the additional capacity and connectivity it will deliver is completely unacceptable.

I am therefore writing to request an urgent meeting with yourself and the Kent County Council Members whose divisions are directly affected by this latest set-back. Could you please advise me of your availability for a meeting to understand the reasons for this further delay and to receive some assurance as to when this new service will actually commence.

I look forward to your early reply.

Yours sincerely

**MIKE WHITING** 

**Member serving Swale West** 

Cabinet Member for Planning, Highways, Transport and Waste

## **Maidstone Joint Transportation Board**





16 October 2019

# **A20 Harrietsham Highway Improvements – S106 funded scheme**

| Decision Making Authority              | Kent County Council                               |  |  |
|--|---|--|--|
| Lead Director                          | Simon Jones                                       |  |  |
| Lead Head of Service                   | Tim Read  |  |  |
| Lead Officer and Report<br>Author      | Jamie Watson, Project Manager (KCC report author) |  |  |
| Wards and County Divisions affected    | Maidstone Rural East                              |  |  |
| Which Member(s) requested this report? | Shellina Prendergast                              |  |  |

#### This report makes the following recommendations:

That the actions taken by KCC to progress to Phase 2 of the A20 Harrietsham Highway Improvements scheme be noted.

| Timetable                            |                 |  |  |
|--------------------------------------|-----------------|--|--|
| Meeting                              | Date            |  |  |
| Maidstone Joint Transportation Board | 16 October 2019 |  |  |

# A20 Harrietsham Highway Improvements – S106 funded scheme

#### 1. ORIGIN OF REPORT

1.1 Councillor Shellina Prendergast has requested an update on the progress of this S106 funded scheme.

#### 2. PURPOSE OF REPORT AND EXECUTIVE SUMMARY

2.1 This report provides an executive summary of Kent County Council's progress on implementing the proposals to reduce the speed limit, through the main part of Harrietsham, from 40 miles per hour (mph) to 30mph on the A20, construct new pedestrian refuge islands, upgrade the pelican crossing point to a toucan crossing point and widen the footway along the A20 through Harrietsham to provide a shared footway/cycleway.

#### 3. INTRODUCTION AND BACKGROUND

- 3.1 In the adopted Maidstone Borough Local Plan (October 2017), Harrietsham is designated as a rural service centre capable of accommodating growth. A total of approximately 242 new homes are due to be delivered across three allocated sites over the plan period to 2031. The local plan can be viewed at: www.maidstone.gov.uk/residents/planning/local-plan
- 3.2 The Local Plan requires that the new housing developments are supported by improvements to transport infrastructure. These include modifications to the A20 Ashford Road corridor in order to facilitate safe and convenient pedestrian movement between the new housing and existing village facilities.
- 3.3 KCC will be designing and delivering the improvements using up to £926,660 of developer funding secured via planning obligations.

#### 4. PROGRESS TO DATE

4.1 The project has been split into 2 phases as not all of the S106 developer contributions have been received. To date £755,160 has been collected leaving £171,500 to collect from Bellway Homes. Bellway Homes have stated they could provide the S106 funding earlier than their agreement states if the usual indexation 'fee' is waived. This fee was calculated at £12,209 in June 2019. KCC is to request early payment to allow Phase 2 to be progressed without further delay and a contribution of £55,000 from KCC's Local Transport Plan fund will allow all of phase 1 and 2 to be completed.

#### Phase 1

- 4.2 Phase 1 is now substantially complete. This phase consisted of narrowing of the carriageway, lowering the speed limit from 40mph to 30mph, the provision of new sections of footway and pedestrian crossing facilities and providing a shared footway/cycleway.
- 4.3 There are a few outstanding issues to resolve following substantial completion and due to the delay between completing phase 1 and starting phase 2.

There has been a request by Shellina Prendergast to:

- install temporary 30mph posts and signs in the locations where the street lighting has not been extended (Phase 2).
- Progress post-completion speed survey loops to understand average speeds.
- Remove the recently installed 30mph gateway buildouts as there is evidence of them being hit by drivers. A recent visit by a road safety auditor to investigate these 2 locations suggested that the buildouts should be replaced with a centre island similar to the other islands recently installed. Due to the safety critical nature of this works this has now been done.
- Alter the centre white lining by the islands to highlight the edge of the centre islands.
- Additional clearance, top soiling and seeding to areas where stones remain in the grass verges.

These works will be programmed in the coming weeks.

#### Phase 2

- 4.4 Phase 2 consists of extending the street lighting to cover the full extent of the new 30mph limit and micro surfacing the areas where the existing white lining has been blacked out. The design work is underway for the street lighting alterations and investigations are taking place to locate the electrical feeds required for this.
- 4.5 It was hoped that the micro surfacing could take place in October but due to Southern Gas Network's requirements to upgrade their service near the nursery site, the decision has been taken to delay this until SGN have completed their work. The timing of the micro surfacing is also weather dependant and from 1 November there is an embargo on any work taking place on this road until further notice due to potential Brexit issues. Potential methods include centre line removal, bus buildouts, on-street parking bay modifications and gateway features. In addition to being lower in cost, such measures are more psychological in nature and therefore encourage a reduction in vehicle speed through changing driver's perception of the road environment.

#### 5. RECOMMENDATION

5.1 That the actions taken by KCC to progress to Phase 2 of the A20 Harrietsham Highway Improvements scheme be noted.

## **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<br>Author      | Russell Boorman/Lee Burchill                        |
| Wards and County Divisions affected    | Wards: Maidstone Central/High<br>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 13<sup>th</sup> March 2019. Weekend surveys were carried out on Saturday and Sunday 16<sup>th</sup>-17<sup>th</sup> 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       | 2019      | 2019       | 2013       | 2019      | 2019       |
|        | (Observed) | (Observed | (Growthed) | (Observed) | (Observed | (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.

#### Appendix A: Peak Hour Analysis

|                    | Weekday       |     |     |    |     |     |     |       |       | Sa  | urday      |     |     |    |    |     |     |     |       |             | Sunday  |       |     |    |        |     |     |     |                    |       |
|--------------------|---------------|-----|-----|----|-----|-----|-----|-------|-------|-----|------------|-----|-----|----|----|-----|-----|-----|-------|-------------|---------|-------|-----|----|--------|-----|-----|-----|--------------------|-------|
|                    | Hourly        |     |     |    |     |     |     |       |       |     | Hourly     |     |     |    |    |     |     |     | Hour  |             |         |       |     |    | Hourly |     |     |     |                    |       |
|                    | All PCUs      | A E | 3 C | [  | ) ( | E F | =   | Total | Total | All | PCUs       | Α   | В   | С  | D  | ) E | E F | :   | Total | Total       | All PCU | S     | A B | С  |        | ) E | E F |     | Total <sup>-</sup> | Γotal |
|                    | 07:30 - 07:45 | 552 | 7   | 15 | 492 | 361 | 69  | 1495  | 5578  | 10  | :00 - 10:1 | .5  | 328 | 8  | 17 | 432 | 297 | 114 | 1196  | 5030        | 10:00 - | 10:15 | 256 | 6  | 9      | 448 | 331 | 84  | 1134               | 4649  |
|                    | 07:45 - 08:00 | 491 | 11  | 19 | 509 | 349 | 101 | 1479  | 5359  | 10  | :15 - 10:3 | 0   | 350 | 12 | 10 | 507 | 323 | 98  | 1302  | 5103        | 10:15 - | 10:30 | 245 | 6  | 12     | 453 | 312 | 83  | 1111               | 4719  |
|                    | 08:00 - 08:15 | 491 | 8   | 32 | 396 | 353 | 102 | 1382  | 5280  | 10  | :30 - 10:4 | 5   | 327 | 15 | 17 | 460 | 325 | 152 | 1297  | 5055        | 10:30   | 10:45 | 283 | 13 | 7      | 408 | 315 | 133 | 1159               | 4839  |
|                    | 08:15 - 08:30 | 408 | 10  | 29 | 327 | 366 | 82  | 1221  | 5230  | 10  | :45 - 11:0 | 00  | 315 | 16 | 12 | 423 | 330 | 140 | 1235  | 5025        | 10:45   | 11:00 | 328 | 7  | 9      | 449 | 334 | 119 | 1245               | 4914  |
|                    | 08:30 - 08:45 | 425 | 7   | 20 | 404 | 353 | 68  | 1277  | 5213  | 13  | :00 - 11:1 | .5  | 350 | 15 | 15 | 436 | 305 | 149 | 1269  | 5028        | 11:00 - | 11:15 | 287 | 10 | 9      | 432 | 314 | 152 | 1204               | 4883  |
|                    | 08:45 - 09:00 | 462 | 12  | 15 | 493 | 349 | 70  | 1400  |       | 13  | :15 - 11:3 | 0   | 340 | 15 | 14 | 432 | 315 | 138 | 1254  | 5023        | 11:15   | 11:30 | 337 | 10 | 4      | 433 | 300 | 146 | 1231               | 4851  |
|                    | 09:00 - 09:15 | 379 | 4   | 15 | 486 | 369 | 79  | 1331  |       | 13  | :30 - 11:4 | 5   | 396 | 22 | 18 | 399 | 304 | 129 | 1268  | 5077        | 11:30 - | 11:45 | 308 | 7  | 14     | 438 | 328 | 139 | 1234               | 4933  |
|                    | 09:15 - 09:30 | 342 | 8   | 11 | 446 | 321 | 77  | 1204  |       | 13  | :45 - 12:0 | 00  | 357 | 30 | 11 | 386 | 316 | 137 | 1238  | 5114        | 11:45   | 12:00 | 322 | 12 | 9      | 416 | 315 | 141 | 1214               | 4948  |
|                    |               |     |     |    |     |     |     |       |       | 12  | :00 - 12:1 | .5  | 316 | 21 | 17 | 420 | 318 | 173 | 1265  | 5175        | 12:00 - | 12:15 | 341 | 13 | 8      | 337 | 329 | 142 | 1171               | 4902  |
|                    | 15:30 - 15:45 | 428 | 12  | 21 | 427 | 356 | 141 | 1385  | 5544  | 12  | :15 - 12:3 | 0   | 341 | 10 | 11 | 451 | 336 | 158 | 1307  | 5234        | 12:15   | 12:30 | 409 | 8  | 7      | 423 | 331 | 136 | 1314               | 4983  |
|                    | 15:45 - 16:00 | 434 | 15  | 25 | 431 | 344 | 142 | 1390  | 5599  | 12  | :30 - 12:4 | 5   | 346 | 10 | 16 | 474 | 312 | 146 | 1304  | <b>5250</b> | 12:30 - | 12:45 | 359 | 9  | 15     | 400 | 327 | 139 | 1249               | 4865  |
|                    | 16:00 - 16:15 | 439 | 18  | 23 | 447 | 352 | 112 | 1390  | 5621  | 12  | :45 - 13:0 | 00  | 334 | 17 | 14 | 467 | 331 | 136 | 1298  | 5198        | 12:45   | 13:00 | 345 | 14 | 5      | 346 | 325 | 133 | 1168               | 4857  |
|                    | 16:15 - 16:30 | 451 | 10  | 14 | 471 | 350 | 82  | 1378  | 5611  | 13  | :00 - 13:1 | .5  | 385 | 22 | 14 | 431 | 308 | 163 | 1324  | 5148        | 13:00 - | 13:15 | 385 | 13 | 17     | 366 | 328 | 144 | 1253               | 4847  |
|                    | 16:30 - 16:45 | 497 | 14  | 17 | 458 | 358 | 97  | 1441  | 5590  | 13  | :15 - 13:3 | 0   | 370 | 20 | 15 | 447 | 325 | 147 | 1323  | 5063        | 13:15   | 13:30 | 293 | 9  | 9      | 440 | 308 | 136 | 1195               | 4891  |
|                    | 16:45 - 17:00 | 514 | 15  | 14 | 466 | 331 | 72  | 1412  | 5599  | 13  | :30 - 13:4 | 5   | 313 | 11 | 17 | 411 | 341 | 160 | 1253  | 4918        | 13:30 - | 13:45 | 319 | 8  | 13     | 443 | 311 | 147 | 1241               | 4890  |
|                    | 17:00 - 17:15 | 483 | 33  | 15 | 418 | 317 | 115 | 1381  | 5614  | 13  | :45 - 14:0 | 00  | 335 | 24 | 11 | 428 | 319 | 131 | 1249  | 4929        | 13:45   | 14:00 | 302 | 12 | 9      | 402 | 305 | 128 | 1158               | 4802  |
|                    | 17:15 - 17:30 |     | 29  | 14 | 409 | 356 | 100 | 1357  |       | 14  | :00 - 14:1 | .5  | 302 | 15 | 20 | 439 | 324 | 140 | 1239  | 4930        | 14:00 - | 14:15 | 332 | 8  | 10     | 469 | 332 | 146 | 1297               | 4760  |
| V                  | 17:30 - 17:45 | 474 | 23  | 19 | 479 | 378 | 77  | 1450  |       | 14  | :15 - 14:3 | 0   | 300 | 15 | 11 | 430 | 307 | 115 | 1178  |             | 14:15   | 14:30 | 328 | 17 | 4      | 413 | 293 | 140 | 1194               |       |
| $\hat{\mathbf{z}}$ | 17:45 - 18:00 | 489 | 25  | 10 | 462 | 347 | 92  | 1426  |       | 14  | :30 - 14:4 | 5   | 393 | 19 | 23 | 382 | 302 | 144 | 1263  |             | 14:30   | 14:45 | 297 | 8  | 11     | 369 | 315 | 154 | 1153               |       |
|                    |               |     |     |    |     |     |     |       |       | 14  | :45 - 15:0 | 0 : | 330 | 19 | 11 | 409 | 326 | 155 | 1250  |             | 14:45   | 15:00 | 314 | 9  | 8      | 356 | 292 | 136 | 1116               |       |

#### **Appendix B: PCU Matrices**

| 2019          | )     |      |    |     |      |      |     |       |                |               |       |      |    |     |      |      |     |       |                |
|---------------|-------|------|----|-----|------|------|-----|-------|----------------|---------------|-------|------|----|-----|------|------|-----|-------|----------------|
| Weekday       |       |      |    |     |      |      |     |       |                | Weekend       |       |      |    |     |      |      |     |       |                |
| AM Peak       |       | Α    | В  | С   | D    | E    | F   | Total |                | Saturday      |       | Α    | В  | С   | D    | E    | F   | Total |                |
| 07:30 - 08:30 | Α     | 3    | 91 | 33  | 862  | 736  | 216 | 1941  |                | 12:30 - 13:30 | Α     | 1    | 37 | 38  | 608  | 524  | 225 | 1434  |                |
|               | В     | 2    | 0  | 2   | 14   | 11   | 7   | 36    |                |               | В     | 1    | 0  | 1   | 33   | 24   | 10  | 69    |                |
|               | С     | 1    | 0  | 0   | 0    | 75   | 19  | 95    |                |               | С     | 2    | 0  | 0   | 0    | 57   | 0   | 59    |                |
|               | D     | 754  | 0  | 18  | 1    | 702  | 248 | 1723  |                |               | D     | 791  | 0  | 11  | 5    | 741  | 271 | 1819  |                |
|               | E     | 638  | 0  | 82  | 663  | 1    | 46  | 1429  |                |               | E     | 445  | 0  | 60  | 652  | 0    | 119 | 1276  |                |
|               | F     | 249  | 0  | 3   | 85   | 17   | 1   | 354   |                |               | F     | 310  | 0  | 2   | 242  | 37   | 1   | 592   |                |
|               | Total | 1647 | 91 | 137 | 1625 | 1542 | 536 | 5578  |                |               | Total | 1550 | 37 | 112 | 1540 | 1384 | 626 | 5250  |                |
| PM Peak       |       | Α    | В  | С   | D    | E    | F   | Total |                | Sunday        |       | Α    | В  | С   | D    | E    | F   | Total |                |
| 16:00 - 17:00 | Α     | 2    | 28 | 25  | 1123 | 571  | 151 | 1901  |                | 12:15-13:15   | Α     | 5    | 29 | 21  | 629  | 606  | 207 | 1497  |                |
|               | В     | 0    | 0  | 4   | 23   | 20   | 10  | 57    |                |               | В     | 0    | 0  | 0   | 24   | 12   | 8   | 45    |                |
|               | С     | 7    | 0  | 0   | 0    | 57   | 4   | 69    |                |               | С     | 4    | 0  | 0   | 1    | 32   | 7   | 44    |                |
|               | D     | 982  | 0  | 16  | 0    | 672  | 172 | 1841  |                |               | D     | 597  | 0  | 9   | 0    | 655  | 274 | 1535  |                |
|               | E     | 600  | 0  | 65  | 670  | 2    | 53  | 1391  |                |               | E     | 614  | 0  | 39  | 512  | 0    | 146 | 1311  |                |
|               | F     | 206  | 0  | 3   | 124  | 29   | 1   | 363   |                |               | F     | 113  | 0  | 1   | 395  | 43   | 0   | 552   |                |
|               | Total | 1796 | 28 | 113 | 1940 | 1352 | 391 | 5621  |                |               | Total | 1333 | 29 | 70  | 1562 | 1348 | 642 | 4983  |                |
| 2031          | L     |      |    |     |      |      |     |       |                |               |       |      |    |     |      |      |     |       |                |
| Weekday       |       |      |    |     |      |      |     |       |                | Weekend       |       |      |    |     |      |      |     |       |                |
| AM Peak       |       | Α    | В  | С   | D    | E    | F   | Tot   |                | Saturday      |       | Α    | В  | С   | D    | E    | F   | Tot   |                |
| 07:30 - 08:30 | Α     | 0    | 99 | 36  | 940  | 802  | 235 | 2112  |                | 12:30 - 13:30 | Α     | 0    | 41 | 43  | 681  | 587  | 252 | 1604  |                |
| 30            | В     | 2    | 0  | 2   | 15   | 12   | 8   | 39    |                | B             | 27    | 11   | 77 |     |      |      |     |       |                |
| 0             | С     | 1    | 0  | 0   | 0    | 82   | 21  | 104   |                |               | С     | 2    | 0  | 0   | 0    | 64   | 0   | 66    |                |
|               | D     | 822  | 0  | 20  | 0    | 765  | 270 | 1877  |                |               | D     | 886  | 0  | 12  | 0    | 830  | 304 | 2032  |                |
|               | E     | 695  | 0  | 89  | 723  | 0    | 50  | 1557  | 2019-2031      |               | E     | 498  | 0  | 67  | 730  | 0    | 133 | 1428  | 2019-2031      |
|               | F     | 271  | 0  | 3   | 93   | 19   | 0   | 386   | Growth Factor: |               | F     | 347  | 0  | 2   | 271  | 41   | 0   | 661   | Growth Factor: |
|               | Tot   | 1791 | 99 | 150 | 1771 | 1680 | 584 | 6075  | 1.09           |               | Tot   | 1734 | 41 | 125 | 1719 | 1549 | 700 | 5868  | 1.12           |
| PM Peak       |       | Α    | В  | С   | D    | Е    | F   | Tot   |                | Sunday        |       | Α    | В  | С   | D    | E    | F   | Tot   |                |
| 16:00 - 17:00 | Α     | 0    | 31 | 28  | 1247 | 634  | 168 | 2108  |                | 12:15-13:15   | Α     | 0    | 32 | 24  | 704  | 679  | 232 | 1671  |                |
|               | В     | 0    | 0  | 4   | 26   | 22   | 11  | 63    |                |               | В     | 0    | 0  | 0   | 27   | 13   | 9   | 49    |                |
|               | С     | 8    | 0  | 0   | 0    | 63   | 4   | 75    |                |               | С     | 4    | 0  | 0   | 0    | 36   | 8   | 48    |                |
|               | D     | 1090 | 0  | 18  | 0    | 746  | 191 | 2045  |                |               | D     | 669  | 0  | 10  | 0    | 734  | 307 | 1720  |                |
|               | Е     | 666  | 0  | 72  | 744  | 0    | 59  | 1541  | 2019-2031      |               | Е     | 688  | 0  | 44  | 573  | 0    | 164 | 1469  | 2019-2031      |
|               | F     | 229  | 0  | 3   | 138  | 32   | 0   | 402   | Growth Factor: |               | F     | 127  | 0  | 1   | 442  | 48   | 0   | 618   | Growth Factor: |
|               | Tot   | 1993 | 31 | 125 | 2155 | 1497 | 433 | 6234  | 1.11           |               | Tot   | 1488 | 32 | 79  | 1746 | 1510 | 720 | 5575  | 1.12           |

**User and Project Details** 

| Project:           | Maidstone Gyratory           |  |  |  |  |  |  |  |  |  |  |
|--------------------|------------------------------|--|--|--|--|--|--|--|--|--|--|
| Title:             | Existing Layout (Pre-scheme) |  |  |  |  |  |  |  |  |  |  |
| Location:          | Maidstone                    |  |  |  |  |  |  |  |  |  |  |
| Client:            | Kent County Council          |  |  |  |  |  |  |  |  |  |  |
| Additional detail: |                              |  |  |  |  |  |  |  |  |  |  |
| File name:         | Gyratory-existing.lsg3x      |  |  |  |  |  |  |  |  |  |  |
| Author:            | Nick Young                   |  |  |  |  |  |  |  |  |  |  |
| Company:           | Pell Frischmann              |  |  |  |  |  |  |  |  |  |  |
| Address:           | 100 Broad Street, Birmingham |  |  |  |  |  |  |  |  |  |  |

**Controller Summary** 

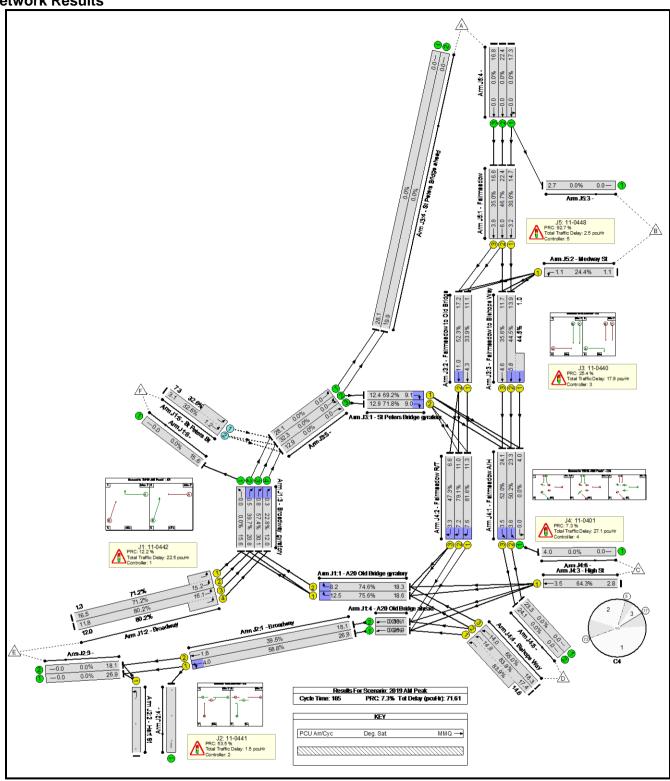
|            |      | ,       |                |            |            |                           |                  |
|------------|------|---------|----------------|------------|------------|---------------------------|------------------|
| Controller | Туре | SCN     | Stage Stream   | Num Phases | Num Stages | <b>Controls Junctions</b> | Controller Notes |
| C1         | Gen  | 11/0442 | Stage Stream 1 | 2          | 2          | 11-0442                   |                  |
| C2         | Gen  | 11/0441 | Stage Stream 1 | 4          | 2          | 11-0441                   |                  |
| СЗ         | Gen  | 11/0440 | Stage Stream 1 | 3          | 2          | 11-0440                   |                  |
| C4         | Gen  | 11/0401 | Stage Stream 1 | 8          | 4          | 11-0401                   |                  |
| C5         | Gen  | 11/0448 | Stage Stream 1 | 2          | 2          | 11-0448                   |                  |

**Traffic Flows, Actual** 

Actual Flow:

|        | Destination |      |    |     |      |      |     |      |  |  |  |  |  |
|--------|-------------|------|----|-----|------|------|-----|------|--|--|--|--|--|
|        |             | А    | В  | С   | D    | Е    | F   | Tot. |  |  |  |  |  |
|        | Α           | 0    | 91 | 33  | 862  | 736  | 216 | 1938 |  |  |  |  |  |
|        | В           | 2    | 0  | 2   | 14   | 11   | 7   | 36   |  |  |  |  |  |
| Origin | С           | 1    | 0  | 0   | 0    | 75   | 19  | 95   |  |  |  |  |  |
| Origin | D           | 754  | 0  | 18  | 0    | 702  | 248 | 1722 |  |  |  |  |  |
|        | Е           | 638  | 0  | 82  | 663  | 0    | 46  | 1429 |  |  |  |  |  |
|        | F           | 249  | 0  | 3   | 85   | 17   | 0   | 354  |  |  |  |  |  |
|        | Tot.        | 1644 | 91 | 138 | 1624 | 1541 | 536 | 5574 |  |  |  |  |  |

#### **Network Results**



| IACTMOLK IVE  | Journal                                      |              |               |               |                       |                      |                      |                   |                 |                           |                                 |  |  |                            |
|---------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|---------------------------|---------------------------------|--|--|----------------------------|
| Item          | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of Uniform<br>Q At End of<br>Red(pcu) | Max. Back of<br>Uniform Queue<br>(pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1        | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 48                    | 637                  | 1805                 | 842               | 75.6%           | 4.6                       | 25.7                            | 8.3  | 11.0                                   | 12.5                       |
| J1:1/2        | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 48                    | 628                  | 1805                 | 842               | 74.6%           | 4.6                       | 26.1                            | 6.7  | 6.8                                    | 8.2                        |
| J1:2/2+J1:2/1 | Broadway Left                                | U            | C1:B          | 1             | 47                    | 613                  | 1870:1870            | 796+65            | 71.2 :<br>71.2% | 5.1                       | 29.9                            | 9.0  | 14.0                                   | 15.2                       |
| J1:2/3+J1:2/4 | Broadway Left                                | U            | C1:B          | 1             | 47                    | 816                  | 1870:1870            | 505+512           | 80.2 :<br>80.2% | 6.8                       | 30.0                            | 7.5  | 14.1                                   | 16.1                       |
| J1:3/2        | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 714                  | 1800                 | 1800              | 39.7%           | 0.3                       | 1.7                             | -  | 0.1                                    | 0.5                        |
| J1:3/3        | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 1033                 | 1800                 | 1800              | 57.4%           | 0.7                       | 2.4                             | -  | 0.2                                    | 0.8                        |
| J1:3/4        | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 411                  | 1800                 | 1800              | 22.8%           | 0.2                       | 1.4                             | -  | 0.2                                    | 0.3                        |
| ქე:5/2+J1:5/1 | St Peters St Left                            | O            | -             | -             | -                     | 354                  | 1800:1800            | 322+764           | 32.6 :<br>32.6% | 0.4                       | 3.8                             | -  | 1.0                                    | 1.2                        |
| J2:1/1        | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 84                    | 921                  | 1940                 | 1570              | 58.6%           | 1.1                       | 4.1                             | 2.5  | 3.3                                    | 4.0                        |
| J2:1/2        | Broadway Ahead                               | U            | C2:A          | 1             | 84                    | 620                  | 1940                 | 1570              | 39.5%           | 0.4                       | 2.6                             | 1.0  | 1.2                                    | 1.6                        |
| J2:2/1        | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                         | -                               | -  | -                                      | -                          |
| J3:1/1        | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 34                    | 426                  | 1848                 | 616               | 69.2%           | 5.2                       | 43.7                            | 7.4  | 8.0                                    | 9.1                        |
| J3:1/2        | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 34                    | 442                  | 1848                 | 616               | 71.8%           | 5.7                       | 46.1                            | 7.6  | 7.8                                    | 9.0                        |
| J3:2/1        | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 60                    | 382                  | 1940                 | 1127              | 33.9%           | 1.3                       | 12.7                            | 4.0  | 4.1                                    | 4.3                        |
| J3:2/2        | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 60                    | 590                  | 1940                 | 1127              | 52.3%           | 2.4                       | 14.9                            | 6.2  | 10.4                                   | 11.0                       |
| J3:3/2+J3:3/1 | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 60                    | 510                  | 1940:1940            | 1066+79           | 44.5 :<br>44.5% | 1.9                       | 13.3                            | 4.9  | 5.4                                    | 5.8                        |

| Gyratory-exis             | sting.lsg3x                           |                            | _                        |  |  |  |  |   |  |                                |   |                               |      | Page 5 |
|---------------------------|---------------------------------------|----------------------------|--------------------------|--|--|--|--|---|--|--------------------------------|---|-------------------------------|------|--------|
| J3:3/3                    | Fairmeadow to<br>Bishops Way<br>Ahead | U                          | C3:C                     | 1  | 60   | 401  | 1940   | 1127  | 35.6%  | 1.4                            | 12.8  | 4.2                           | 4.3  | 4.6    |
| J4:1/2                    | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 85   | 798  | 1940   | 1589  | 50.2%  | 0.8                            | 3.6   | 2.2                           | 3.1  | 3.6    |
| J4:1/3                    | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 85   | 826  | 1940   | 1589  | 52.0%  | 0.8                            | 3.7   | 2.2                           | 2.9  | 3.5    |
| J4:2/1                    | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 26   | 388  | 1848   | 475   | 81.6%  | 5.0                            | 46.8  | 5.0                           | 5.5  | 7.6    |
| J4:2/2                    | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 26   | 376  | 1848   | 475   | 79.1%  | 4.7                            | 45.2  | 5.0                           | 5.4  | 7.2    |
| J4:2/3                    | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 26   | 225  | 1848   | 475   | 47.3%  | 2.1                            | 33.3  | 2.8                           | 2.8  | 3.3    |
| J4:3/1                    | High St Ahead<br>Ahead2               | U                          | C4:A                     | 1  | 7  | 95   | 1940   | 148   | 64.3%  | 2.1                            | 80.1  | 2.5                           | 2.7  | 3.5    |
| J4:4/2+J4:4/1             | Bishops Way Left<br>Left2             | U                          | C4:B                     | 1  | 55   | 1096                                       | 1805:1805  | 711+596   | 83.9 :<br>83.9%  | 7.6                            | 24.8  | 7.8                           | 12.3 | 14.8   |
| <del>ပ</del><br>ပာ J4:4/3 | Bishops Way Left                      | U                          | C4:B                     | 1  | 55   | 626  | 1805   | 963   | 65.0%  | 4.0                            | 22.8  | 8.2                           | 13.0 | 14.0   |
| J5:1/1                    | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 88   | 503  | 1940   | 1644  | 30.6%  | 0.5                            | 3.2   | 2.0                           | 2.9  | 3.2    |
| J5:1/2                    | Fairmeadow Ahead<br>Ahead2            | U                          | C5:A                     | 1  | 88   | 768  | 1940   | 1644  | 46.7%  | 0.9                            | 4.1   | 3.0                           | 5.5  | 6.0    |
| J5:1/3                    | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 88   | 576  | 1940   | 1644  | 35.0%  | 0.5                            | 3.4   | 2.2                           | 3.5  | 3.8    |
| J5:2/1                    | Medway St Left<br>Left2               | U                          | C5:B                     | 1  | 7  | 36   | 1940   | 148   | 24.4%  | 0.6                            | 61.7  | 0.9                           | 1.0  | 1.1    |
|                           | (<br>(                                | 01<br>02<br>03<br>04<br>05 | PRC<br>PRC<br>PRC<br>PRC | for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>RC Over All I | Lanes (%):<br>Lanes (%):<br>Lanes (%):<br>Lanes (%): | 12.2<br>53.5<br>25.4<br>7.3<br>92.7<br>7.3 | Total Delay f<br>Total Delay f<br>Total Delay f<br>Total Delay f | or Signalled La<br>or Signalled La<br>or Signalled La<br>or Signalled La<br>or Signalled La<br>elay Over All La | ines (pcuHr):<br>ines (pcuHr):<br>ines (pcuHr):<br>ines (pcuHr): | 1.51<br>17.95<br>27.13<br>2.48 | Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s | s): 105<br>s): 105<br>s): 105 |      |        |

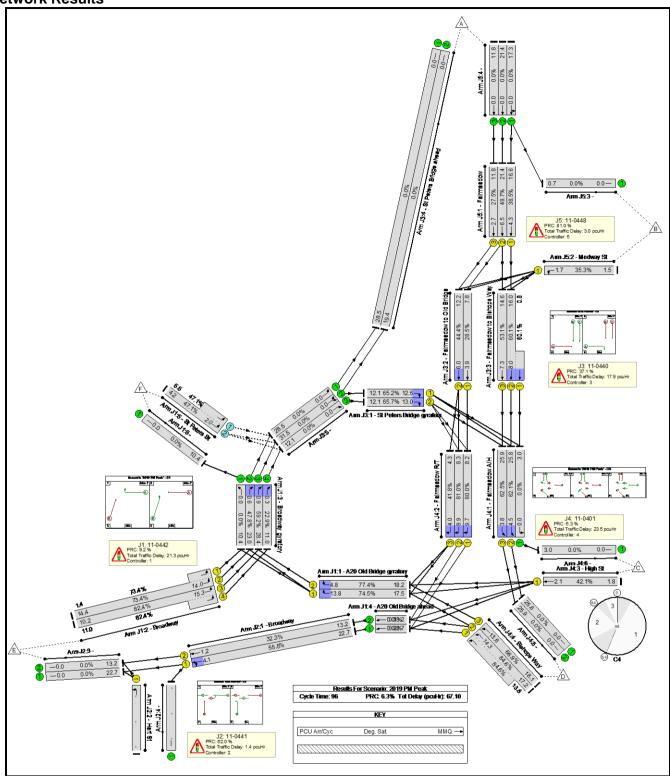
Basic Results Summary

Gyratory-existing.lsg3x

Scenario 8: '2019 PM Peak' (FG8: '2019 PM Peak', Plan 1: 'Network Control Plan 1-existing')

**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | Α    | В  | С     | D      | E    | F   | Tot. |
|        | Α    | 0    | 28 | 25    | 1123   | 571  | 151 | 1898 |
|        | В    | 0    | 0  | 4     | 23     | 20   | 10  | 57   |
| Origin | С    | 7    | 0  | 0     | 0      | 57   | 4   | 68   |
| Origin | D    | 982  | 0  | 16    | 0      | 672  | 172 | 1842 |
|        | Е    | 600  | 0  | 65    | 670    | 0    | 53  | 1388 |
|        | F    | 206  | 0  | 3     | 124    | 29   | 0   | 362  |
|        | Tot. | 1795 | 28 | 113   | 1940   | 1349 | 390 | 5615 |



| IACTMOLK IVE  | Journal                                      |              |               |               |                       |                      |                      |                   |                 |                           |                                 |  |  |                            |
|---------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|---------------------------|---------------------------------|--|--|----------------------------|
| Item          | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of Uniform<br>Q At End of<br>Red(pcu) | Max. Back of<br>Uniform Queue<br>(pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1        | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 46                    | 658                  | 1805                 | 884               | 74.5%           | 4.1                       | 22.2                            | 6.6  | 12.4                                   | 13.8                       |
| J1:1/2        | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 46                    | 684                  | 1805                 | 884               | 77.4%           | 3.1                       | 16.2                            | 3.1  | 3.2                                    | 4.8                        |
| J1:2/2+J1:2/1 | Broadway Left                                | U            | C1:B          | 1             | 40                    | 593                  | 1870:1870            | 735+72            | 73.4 :<br>73.4% | 5.1                       | 30.9                            | 8.3  | 12.6                                   | 14.0                       |
| J1:2/3+J1:2/4 | Broadway Left                                | U            | C1:B          | 1             | 40                    | 795                  | 1870:1870            | 464+501           | 82.4 :<br>82.4% | 7.0                       | 31.7                            | 7.1  | 13.0                                   | 15.3                       |
| J1:3/2        | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 861                  | 1800                 | 1800              | 47.8%           | 0.5                       | 1.9                             | -  | 0.1                                    | 0.6                        |
| J1:3/3        | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 1066                 | 1800                 | 1800              | 59.2%           | 0.7                       | 2.5                             | -  | 0.2                                    | 0.9                        |
| J1:3/4        | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 413                  | 1800                 | 1800              | 22.9%           | 0.2                       | 1.4                             | -  | 0.2                                    | 0.3                        |
| ქე:5/2+J1:5/1 | St Peters St Left                            | 0            | -             | -             | -                     | 362                  | 1800:1800            | 331+437           | 47.1 :<br>47.1% | 0.7                       | 7.4                             | -  | 1.5                                    | 2.0                        |
| J2:1/1        | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 75                    | 853                  | 1940                 | 1536              | 55.5%           | 1.0                       | 4.3                             | 2.6  | 3.4                                    | 4.1                        |
| J2:1/2        | <b>Broadway Ahead</b>                        | U            | C2:A          | 1             | 75                    | 496                  | 1940                 | 1536              | 32.3%           | 0.3                       | 2.5                             | 0.8  | 0.9                                    | 1.2                        |
| J2:2/1        | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                         | -                               | -  | -                                      | -                          |
| J3:1/1        | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 35                    | 452                  | 1848                 | 693               | 65.2%           | 4.5                       | 36.0                            | 9.4  | 11.7                                   | 12.6                       |
| J3:1/2        | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 35                    | 455                  | 1848                 | 693               | 65.7%           | 4.7                       | 37.3                            | 10.4                                       | 12.1                                   | 13.0                       |
| J3:2/1        | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 50                    | 294                  | 1940                 | 1031              | 28.5%           | 1.1                       | 13.8                            | 3.2  | 3.7                                    | 3.9                        |
| J3:2/2        | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 50                    | 458                  | 1940                 | 1031              | 44.4%           | 2.0                       | 15.6                            | 5.2  | 5.6                                    | 6.0                        |
| J3:3/2+J3:3/1 | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 50                    | 628                  | 1940:1940            | 997+48            | 60.1 :<br>60.1% | 3.1                       | 17.6                            | 7.1  | 7.3                                    | 8.0                        |

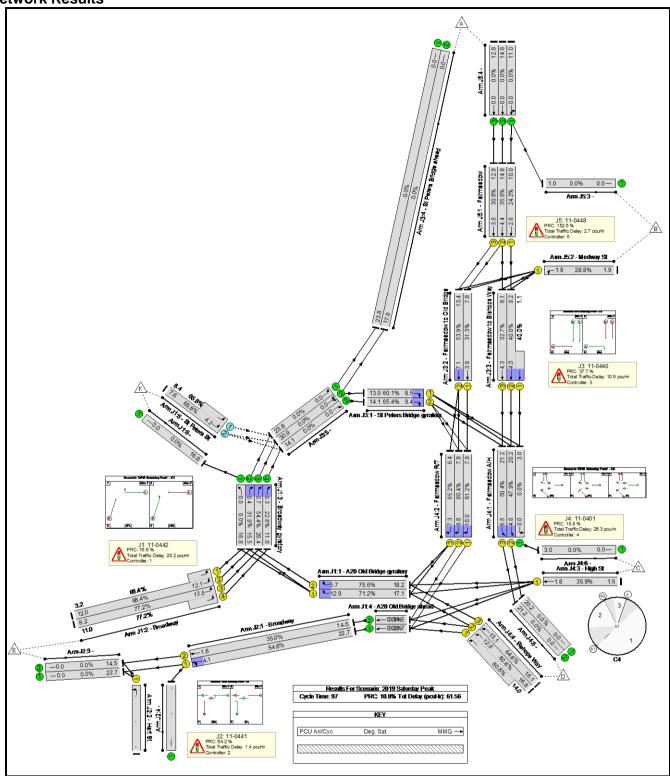
| Gyratory-exis            | sting.lsg3x                           |                            |                          |  |  |   |  |   |  |                                |   |                         |      | Page 9 |
|--------------------------|---------------------------------------|----------------------------|--------------------------|--|--|---|--|---|--|--------------------------------|---|-------------------------|------|--------|
| J3:3/3                   | Fairmeadow to<br>Bishops Way<br>Ahead | U                          | C3:C                     | 1  | 50   | 547                                       | 1940   | 1031  | 53.1%  | 2.5                            | 16.6  | 6.1                     | 6.8  | 7.3    |
| J4:1/2                   | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 76   | 967                                       | 1940   | 1556  | 62.1%  | 1.2                            | 4.7   | 2.8                     | 3.7  | 4.5    |
| J4:1/3                   | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 76   | 973                                       | 1940   | 1556  | 62.5%  | 1.2                            | 4.4   | 2.5                     | 2.9  | 3.8    |
| J4:2/1                   | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 19   | 308                                       | 1848   | 385   | 80.0%  | 3.8                            | 44.9  | 5.6                     | 7.8  | 9.7    |
| J4:2/2                   | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 19   | 312                                       | 1848   | 385   | 81.0%  | 4.0                            | 46.2  | 5.2                     | 7.9  | 9.9    |
| J4:2/3                   | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 19   | 161                                       | 1848   | 385   | 41.8%  | 1.2                            | 25.8  | 2.5                     | 3.7  | 4.0    |
| J4:3/1                   | High St Ahead<br>Ahead2               | U                          | C4:A                     | 1  | 7  | 68  | 1940   | 162   | 42.1%  | 1.2                            | 60.9  | 1.6                     | 1.7  | 2.1    |
| J4:4/2+J4:4/1            | Bishops Way Left<br>Left2             | U                          | C4:B                     | 1  | 53   | 1163                                      | 1805:1805  | 763+611   | 84.6 :<br>84.6%  | 7.1                            | 22.0  | 7.2                     | 11.7 | 14.3   |
| <del>S</del><br>G J4:4/3 | Bishops Way Left                      | U                          | C4:B                     | 1  | 53   | 679                                       | 1805   | 1015  | 66.9%  | 3.8                            | 20.1  | 7.5                     | 12.6 | 13.6   |
| J5:1/1                   | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 79   | 622                                       | 1940   | 1617  | 38.5%  | 0.7                            | 3.8   | 2.4                     | 4.0  | 4.3    |
| J5:1/2                   | Fairmeadow Ahead<br>Ahead2            | U                          | C5:A                     | 1  | 79   | 804                                       | 1940   | 1617  | 49.7%  | 1.0                            | 4.5   | 3.1                     | 6.0  | 6.5    |
| J5:1/3                   | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 79   | 444                                       | 1940   | 1617  | 27.5%  | 0.4                            | 3.3   | 1.7                     | 2.5  | 2.7    |
| J5:2/1                   | Medway St Left<br>Left2               | U                          | C5:B                     | 1  | 7  | 57  | 1940   | 162   | 35.3%  | 0.9                            | 58.7  | 1.4                     | 1.4  | 1.7    |
|                          | (<br>(                                | 01<br>02<br>03<br>04<br>05 | PRO<br>PRO<br>PRO<br>PRO | for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>RC Over All I | I Lanes (%):<br>I Lanes (%):<br>I Lanes (%):<br>I Lanes (%): | 9.2<br>62.0<br>37.1<br>6.3<br>81.0<br>6.3 | Total Delay f<br>Total Delay f<br>Total Delay f<br>Total Delay f | or Signalled La<br>or Signalled La<br>or Signalled La<br>or Signalled La<br>or Signalled La<br>elay Over All La | ines (pcuHr):<br>ines (pcuHr):<br>ines (pcuHr):<br>ines (pcuHr): | 1.36<br>17.95<br>23.47<br>2.99 | Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s | ): 96<br>): 96<br>): 96 |      |        |

**Basic Results Summary** Created 03/04/2019 Page 10

Gyratory-existing.lsg3x Scenario 9: '2019 Saturday Peak' (FG9: '2019 Saturday Peak', Plan 1: 'Network Control Plan 1-existing')

**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | Α    | В  | С     | D      | E    | F   | Tot. |
|        | Α    | 0    | 37 | 38    | 608    | 524  | 225 | 1432 |
|        | В    | 1    | 0  | 1     | 33     | 24   | 10  | 69   |
| Origin | С    | 2    | 0  | 0     | 0      | 57   | 0   | 59   |
| Origin | D    | 791  | 0  | 11    | 0      | 741  | 271 | 1814 |
|        | Е    | 445  | 0  | 60    | 652    | 0    | 119 | 1276 |
|        | F    | 310  | 0  | 2     | 242    | 37   | 0   | 591  |
|        | Tot. | 1549 | 37 | 112   | 1535   | 1383 | 625 | 5241 |



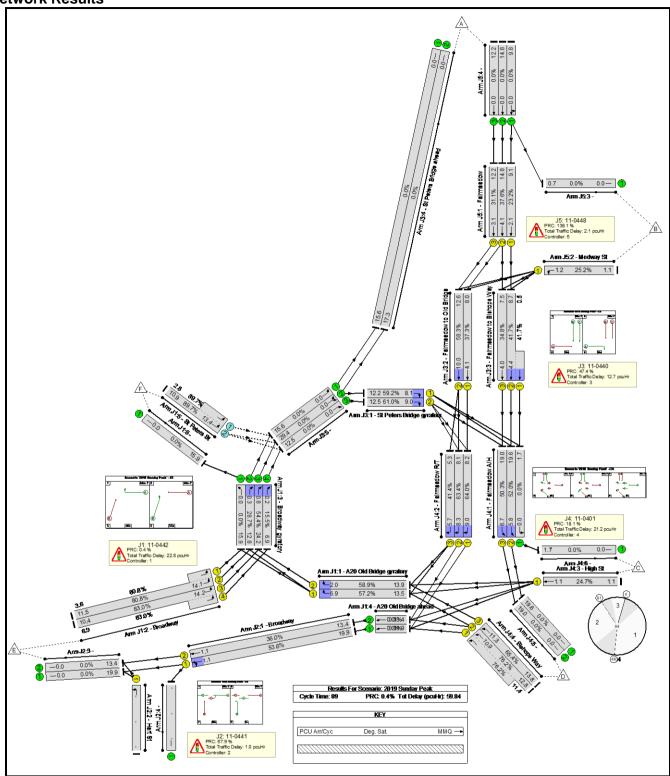
| IACTMOLK IVE         | Journal                                      |              |               |               |                       |                      |                      |                   |                 |                           |                                 |  |  |                            |
|----------------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|---------------------------|---------------------------------|--|--|----------------------------|
| Item                 | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of Uniform<br>Q At End of<br>Red(pcu) | Max. Back of<br>Uniform Queue<br>(pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1               | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 47                    | 636                  | 1805                 | 893               | 71.2%           | 4.1                       | 23.4                            | 8.8  | 11.7                                   | 12.9                       |
| J1:1/2               | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 47                    | 675                  | 1805                 | 893               | 75.6%           | 3.3                       | 17.7                            | 4.1  | 4.2                                    | 5.7                        |
| J1:2/2+J1:2/1        | Broadway Left                                | U            | C1:B          | 1             | 40                    | 564                  | 1870:1870            | 650+174           | 68.4 :<br>68.4% | 4.5                       | 28.6                            | 7.4  | 11.0                                   | 12.1                       |
| J1:2/3+J1:2/4        | Broadway Left                                | U            | C1:B          | 1             | 40                    | 712                  | 1870:1870            | 395+527           | 77.2 :<br>77.2% | 5.9                       | 29.8                            | 6.9  | 11.9                                   | 13.5                       |
| J1:3/2               | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 575                  | 1800                 | 1800              | 31.9%           | 0.2                       | 1.5                             | -  | 0.1                                    | 0.4                        |
| J1:3/3               | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 980                  | 1800                 | 1800              | 54.4%           | 0.6                       | 2.2                             | -  | 0.1                                    | 0.7                        |
| J1:3/4               | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 407                  | 1800                 | 1800              | 22.6%           | 0.2                       | 1.4                             | -  | 0.2                                    | 0.3                        |
| <u></u> 4:5/2+J1:5/1 | St Peters St Left                            | 0            | •             | -             | -                     | 591                  | 1800:1800            | 427+471           | 65.8 :<br>65.8% | 1.4                       | 8.3                             | -  | 3.2                                    | 4.2                        |
| J2:1/1               | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 76                    | 844                  | 1940                 | 1540              | 54.8%           | 1.0                       | 4.3                             | 2.6  | 3.5                                    | 4.1                        |
| J2:1/2               | <b>Broadway Ahead</b>                        | U            | C2:A          | 1             | 76                    | 539                  | 1940                 | 1540              | 35.0%           | 0.4                       | 2.8                             | 1.1  | 1.3                                    | 1.6                        |
| J2:2/1               | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                         | -                               | -  | -                                      | -                          |
| J3:1/1               | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 41                    | 481                  | 1848                 | 800               | 60.1%           | 1.9                       | 14.4                            | 2.9  | 7.8                                    | 8.5                        |
| J3:1/2               | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 41                    | 523                  | 1848                 | 800               | 65.4%           | 1.7                       | 11.7                            | 1.8  | 8.5                                    | 9.4                        |
| J3:2/1               | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 45                    | 288                  | 1940                 | 920               | 31.3%           | 1.4                       | 17.0                            | 3.5  | 3.7                                    | 3.9                        |
| J3:2/2               | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 45                    | 496                  | 1940                 | 920               | 53.9%           | 2.7                       | 19.6                            | 6.0  | 6.5                                    | 7.1                        |
| J3:3/2+J3:3/1        | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 45                    | 379                  | 1940:1940            | 849+97            | 40.0 :<br>40.0% | 1.9                       | 17.7                            | 4.1  | 4.2                                    | 4.5                        |

| Gyratory-exis | sting.lsg3x                           |                            |                          |  |  |   |  |   |  |                                |   |                            |      | Page 13 |
|---------------|---------------------------------------|----------------------------|--------------------------|--|--|---|--|---|--|--------------------------------|---|----------------------------|------|---------|
| J3:3/3        | Fairmeadow to<br>Bishops Way<br>Ahead | U                          | C3:C                     | 1  | 45   | 301   | 1940   | 920   | 32.7%  | 1.4                            | 16.8  | 3.7                        | 4.0  | 4.3     |
| J4:1/2        | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 77   | 748   | 1940   | 1560  | 47.9%  | 0.9                            | 4.4   | 2.8                        | 4.4  | 4.8     |
| J4:1/3        | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 77   | 787   | 1940   | 1560  | 50.4%  | 1.4                            | 6.3   | 4.4                        | 6.0  | 6.5     |
| J4:2/1        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 18   | 294   | 1848   | 362   | 81.2%  | 5.2                            | 63.9  | 7.7                        | 7.9  | 10.0    |
| J4:2/2        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 18   | 291   | 1848   | 362   | 80.4%  | 4.9                            | 60.8  | 7.2                        | 7.8  | 9.8     |
| J4:2/3        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 18   | 236   | 1848   | 362   | 65.2%  | 3.3                            | 50.8  | 6.2                        | 6.4  | 7.3     |
| J4:3/1        | High St Ahead<br>Ahead2               | U                          | C4:A                     | 1  | 7  | 59  | 1940   | 160   | 36.9%  | 1.0                            | 59.9  | 1.4                        | 1.5  | 1.8     |
| J4:4/2+J4:4/1 | Bishops Way Left<br>Left2             | U                          | C4:B                     | 1  | 55   | 1141  | 1805:1805  | 770+642   | 80.8 :<br>80.8%  | 6.1                            | 19.3  | 6.7                        | 10.7 | 12.8    |
| ₩ J4:4/3      | Bishops Way Left                      | U                          | C4:B                     | 1  | 55   | 673   | 1805   | 1042  | 64.6%  | 3.5                            | 18.7  | 7.3                        | 12.2 | 13.1    |
| J5:1/1        | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 76   | 372   | 1940   | 1540  | 24.2%  | 0.4                            | 4.1   | 1.9                        | 2.5  | 2.6     |
| J5:1/2        | Fairmeadow Ahead<br>Ahead2            | U                          | C5:A                     | 1  | 76   | 549   | 1940   | 1540  | 35.6%  | 0.7                            | 4.7   | 2.7                        | 4.1  | 4.4     |
| J5:1/3        | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 76   | 474   | 1940   | 1540  | 30.8%  | 0.6                            | 4.4   | 2.4                        | 3.4  | 3.6     |
| J5:2/1        | Medway St Left<br>Left2               | U                          | C5:B                     | 1  | 11   | 69  | 1940   | 240   | 28.8%  | 0.9                            | 49.1  | 1.6                        | 1.7  | 1.9     |
|               | (<br>(                                | 01<br>02<br>03<br>04<br>05 | PRC<br>PRC<br>PRC<br>PRC | for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>RC Over All I | Lanes (%):<br>Lanes (%):<br>Lanes (%):<br>Lanes (%): | 16.6<br>64.2<br>37.7<br>10.8<br>152.5<br>10.8 | Total Delay f<br>Total Delay f<br>Total Delay f<br>Total Delay f | or Signalled La<br>or Signalled La<br>or Signalled La<br>or Signalled La<br>or Signalled La<br>elay Over All La | nes (pcuHr):<br>nes (pcuHr):<br>nes (pcuHr):<br>nes (pcuHr): | 1.41<br>10.95<br>26.34<br>2.66 | Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s | s): 97<br>s): 97<br>s): 97 |      |         |

**Basic Results Summary** Created 03/04/2019 Gyratory-existing.lsg3x
Scenario 10: '2019 Sunday Peak' (FG10: '2019 Sunday Peak', Plan 1: 'Network Control Plan 1-existing') Page 14

**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | А    | В  | С     | D      | Е    | F   | Tot. |
|        | Α    | 0    | 29 | 21    | 629    | 606  | 207 | 1492 |
|        | В    | 0    | 0  | 0     | 24     | 12   | 8   | 44   |
| Origin | С    | 4    | 0  | 0     | 0      | 32   | 7   | 43   |
| Origin | D    | 597  | 0  | 9     | 0      | 655  | 274 | 1535 |
|        | Е    | 614  | 0  | 39    | 512    | 0    | 146 | 1311 |
|        | F    | 113  | 0  | 1     | 395    | 43   | 0   | 552  |
|        | Tot. | 1328 | 29 | 70    | 1560   | 1348 | 642 | 4977 |



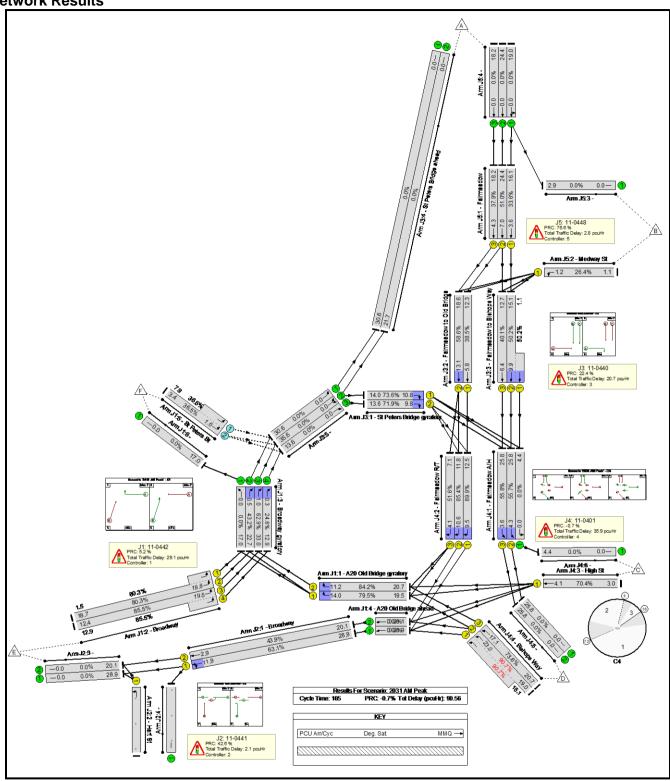
| HELWOIK              | ooano  |              |               |               |                       |                      |                      |                   |                 |                           |                                 |  |  |                            |
|----------------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|---------------------------|---------------------------------|--|--|----------------------------|
| Item                 | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of Uniform<br>Q At End of<br>Red(pcu) | Max. Back of<br>Uniform Queue<br>(pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1               | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 46                    | 545                  | 1805                 | 953               | 57.2%           | 2.9                       | 19.1                            | 6.0  | 6.2                                    | 6.9                        |
| J1:1/2               | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 46                    | 561                  | 1805                 | 953               | 58.9%           | 1.3                       | 8.1                             | 1.2  | 1.3                                    | 2.0                        |
| J1:2/2+J1:2/1        | Broadway Left                                | U            | C1:B          | 1             | 33                    | 613                  | 1870:1870            | 578+181           | 80.8 :<br>80.8% | 6.0                       | 35.5                            | 7.8  | 12.0                                   | 14.1                       |
| J1:2/3+J1:2/4        | Broadway Left                                | U            | C1:B          | 1             | 33                    | 698                  | 1870:1870            | 505+336           | 83.0 :<br>83.0% | 6.7                       | 34.7                            | 6.9  | 11.8                                   | 14.2                       |
| J1:3/2               | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 516                  | 1800                 | 1800              | 28.7%           | 0.2                       | 1.4                             | -  | 0.1                                    | 0.3                        |
| J1:3/3               | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 980                  | 1800                 | 1800              | 54.4%           | 0.6                       | 2.2                             | -  | 0.2                                    | 0.8                        |
| J1:3/4               | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 279                  | 1800                 | 1800              | 15.5%           | 0.1                       | 1.2                             | -  | 0.1                                    | 0.2                        |
| <u>料</u> :5/2+J1:5/1 | St Peters St Left                            | 0            | -             | -             | -                     | 552                  | 1800:1800            | 490+126           | 89.7 :<br>89.7% | 4.9                       | 32.2                            | -  | 9.5                                    | 13.4                       |
| J2:1/1               | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 68                    | 806                  | 1940                 | 1504              | 53.6%           | 0.6                       | 2.9                             | 0.5  | 0.5                                    | 1.1                        |
| J2:1/2               | Broadway Ahead                               | U            | C2:A          | 1             | 68                    | 542                  | 1940                 | 1504              | 36.0%           | 0.4                       | 2.7                             | 0.8  | 0.8                                    | 1.1                        |
| J2:2/1               | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                         | -                               | -  | -                                      | -                          |
| J3:1/1               | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 39                    | 492                  | 1848                 | 831               | 59.2%           | 2.3                       | 16.7                            | 4.1  | 7.3                                    | 8.1                        |
| J3:1/2               | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 39                    | 507                  | 1848                 | 831               | 61.0%           | 2.5                       | 17.5                            | 4.2  | 8.2                                    | 9.0                        |
| J3:2/1               | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 39                    | 325                  | 1940                 | 872               | 37.3%           | 1.6                       | 17.9                            | 3.8  | 3.8                                    | 4.1                        |
| J3:2/2               | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 39                    | 508                  | 1940                 | 872               | 58.3%           | 3.0                       | 21.2                            | 5.9  | 9.3                                    | 10.0                       |
| J3:3/2+J3:3/1        | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 39                    | 371                  | 1940:1940            | 840+50            | 41.7 :<br>41.7% | 1.9                       | 18.2                            | 4.0  | 4.0                                    | 4.4                        |

| Gyratory-exis | sting.lsg3x                           |                            |                          |  |  |   |  |  |  |                                |   |                         |      | Page 17 |
|---------------|---------------------------------------|----------------------------|--------------------------|--|--|---|--|--|--|--------------------------------|---|-------------------------|------|---------|
| J3:3/3        | Fairmeadow to<br>Bishops Way<br>Ahead | U                          | C3:C                     | 1  | 39   | 303   | 1940   | 872  | 34.8%  | 1.5                            | 17.3  | 3.6                     | 3.8  | 4.0     |
| J4:1/2        | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 69   | 793   | 1940   | 1526   | 52.0%  | 1.3                            | 5.8   | 3.8                     | 5.2  | 5.8     |
| J4:1/3        | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 69   | 767   | 1940   | 1526   | 50.3%  | 1.5                            | 7.0   | 4.7                     | 6.2  | 6.7     |
| J4:2/1        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 24   | 332   | 1848   | 519  | 64.0%  | 3.3                            | 35.8  | 7.1                     | 8.1  | 9.0     |
| J4:2/2        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 24   | 329   | 1848   | 519  | 63.4%  | 2.9                            | 31.9  | 6.5                     | 7.4  | 8.3     |
| J4:2/3        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 24   | 215   | 1848   | 519  | 41.4%  | 1.7                            | 28.4  | 4.7                     | 5.3  | 5.7     |
| J4:3/1        | High St Ahead<br>Ahead2               | U                          | C4:A                     | 1  | 7  | 43  | 1940   | 174  | 24.7%  | 0.6                            | 51.4  | 0.9                     | 1.0  | 1.1     |
| J4:4/2+J4:4/1 | Bishops Way Left<br>Left2             | U                          | C4:B                     | 1  | 41   | 978   | 1805:1805  | 678+605  | 76.2 :<br>76.2%  | 6.2                            | 22.9  | 6.5                     | 9.3  | 10.9    |
| → J4:4/3      | Bishops Way Left                      | U                          | C4:B                     | 1  | 41   | 557   | 1805   | 852  | 65.4%  | 3.7                            | 24.0  | 7.0                     | 10.4 | 11.3    |
| J5:1/1        | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 72   | 369   | 1940   | 1591   | 23.2%  | 0.3                            | 3.3   | 1.4                     | 1.9  | 2.1     |
| J5:1/2        | Fairmeadow Ahead<br>Ahead2            | U                          | C5:A                     | 1  | 72   | 599   | 1940   | 1591   | 37.6%  | 0.6                            | 3.9   | 2.3                     | 3.8  | 4.1     |
| J5:1/3        | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 72   | 495   | 1940   | 1591   | 31.1%  | 0.5                            | 3.6   | 1.9                     | 2.9  | 3.1     |
| J5:2/1        | Medway St Left<br>Left2               | U                          | C5:B                     | 1  | 7  | 44  | 1940   | 174  | 25.2%  | 0.6                            | 51.5  | 1.0                     | 1.0  | 1.2     |
|               | (<br>(                                | 01<br>02<br>03<br>04<br>05 | PRC<br>PRC<br>PRC<br>PRC | for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>RC Over All L | I Lanes (%):<br>I Lanes (%):<br>I Lanes (%):<br>I Lanes (%): | 8.5<br>67.9<br>47.4<br>18.1<br>139.1<br>0.4 | Total Delay f<br>Total Delay f<br>Total Delay f<br>Total Delay f | for Signalled La<br>for Signalled La<br>for Signalled La<br>for Signalled La<br>for Signalled La<br>elay Over All La | nes (pcuHr):<br>nes (pcuHr):<br>nes (pcuHr):<br>nes (pcuHr): | 1.05<br>12.69<br>21.23<br>2.10 | Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s | ): 89<br>): 89<br>): 89 |      |         |

**Basic Results Summary** Created 03/04/2019 Gyratory-existing.lsg3x Scenario 11: '2031 AM Peak' (FG11: '2031 AM Peak', Plan 1: 'Network Control Plan 1-existing') Page 18

**Traffic Flows, Actual** 

|        | Destination           A         B         C         D         E         F         Tot.           A         0         99         36         940         802         235         2112           B         2         0         2         15         12         8         39           C         1         0         0         0         82         21         104           D         822         0         20         0         765         270         1877           E         695         0         89         723         0         50         1557 |      |    |     |      |      |     |      |  |  |  |  |
|--------|---|------|----|-----|------|------|-----|------|--|--|--|--|
|        |   | А    | В  | С   | D    | Е    | F   | Tot. |  |  |  |  |
|        | Α   | 0    | 99 | 36  | 940  | 802  | 235 | 2112 |  |  |  |  |
|        | В   | 2    | 0  | 2   | 15   | 12   | 8   | 39   |  |  |  |  |
| Origin | С   | 1    | 0  | 0   | 0    | 82   | 21  | 104  |  |  |  |  |
| Origin | D   | 822  | 0  | 20  | 0    | 765  | 270 | 1877 |  |  |  |  |
|        | Е   | 695  | 0  | 89  | 723  | 0    | 50  | 1557 |  |  |  |  |
|        | F   | 271  | 0  | 3   | 93   | 19   | 0   | 386  |  |  |  |  |
|        | Tot.  | 1791 | 99 | 150 | 1771 | 1680 | 584 | 6075 |  |  |  |  |



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|---------------------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|---------------------------|---------------------------------|--|--|----------------------------|
| Item                      | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of Uniform<br>Q At End of<br>Red(pcu) | Max. Back of<br>Uniform Queue<br>(pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1                    | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 48                    | 670                  | 1805                 | 842               | 79.5%           | 5.5                       | 29.8                            | 9.5  | 12.1                                   | 14.0                       |
| J1:1/2                    | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 48                    | 709                  | 1805                 | 842               | 84.2%           | 6.8                       | 34.7                            | 8.6  | 8.6                                    | 11.2                       |
| J1:2/2+J1:2/1             | Broadway Left                                | U            | C1:B          | 1             | 47                    | 691                  | 1870:1870            | 798+62            | 80.3 :<br>80.3% | 6.6                       | 34.6                            | 10.2                                       | 16.8                                   | 18.8                       |
| J1:2/3+J1:2/4             | Broadway Left                                | U            | C1:B          | 1             | 47                    | 866                  | 1870:1870            | 496+517           | 85.5 :<br>85.5% | 8.2                       | 34.0                            | 8.4  | 16.6                                   | 19.5                       |
| J1:3/2                    | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 777                  | 1800                 | 1800              | 43.2%           | 0.4                       | 1.8                             | -  | 0.1                                    | 0.5                        |
| J1:3/3                    | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 1133                 | 1800                 | 1800              | 62.9%           | 0.9                       | 2.7                             | -  | 0.2                                    | 1.0                        |
| J1:3/4                    | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 442                  | 1800                 | 1800              | 24.6%           | 0.2                       | 1.4                             | -  | 0.2                                    | 0.3                        |
| ₫; <sup>5/2</sup> +J1:5/1 | St Peters St Left                            | 0            | -             | -             | -                     | 386                  | 1800:1800            | 315+743           | 36.5 :<br>36.5% | 0.5                       | 4.7                             | -  | 1.3                                    | 1.6                        |
| J2:1/1                    | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 84                    | 991                  | 1940                 | 1570              | 63.1%           | 1.4                       | 5.2                             | 2.0  | 11.1                                   | 11.9                       |
| J2:1/2                    | Broadway Ahead                               | U            | C2:A          | 1             | 84                    | 689                  | 1940                 | 1570              | 43.9%           | 0.6                       | 3.4                             | 1.6  | 2.5                                    | 2.9                        |
| J2:2/1                    | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                         | -                               | -  | -                                      | -                          |
| J3:1/1                    | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 36                    | 479                  | 1848                 | 651               | 73.6%           | 6.0                       | 44.9                            | 8.7  | 9.4                                    | 10.8                       |
| J3:1/2                    | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 36                    | 468                  | 1848                 | 651               | 71.9%           | 6.0                       | 46.1                            | 8.4  | 8.6                                    | 9.8                        |
| J3:2/1                    | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 58                    | 420                  | 1940                 | 1090              | 38.5%           | 1.6                       | 13.7                            | 4.2  | 5.5                                    | 5.8                        |
| J3:2/2                    | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 58                    | 639                  | 1940                 | 1090              | 58.6%           | 3.1                       | 17.4                            | 6.6  | 12.4                                   | 13.1                       |
| J3:3/2+J3:3/1             | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 58                    | 556                  | 1940:1940            | 1032+76           | 50.2 :<br>50.2% | 2.4                       | 15.3                            | 5.2  | 9.4                                    | 9.9                        |

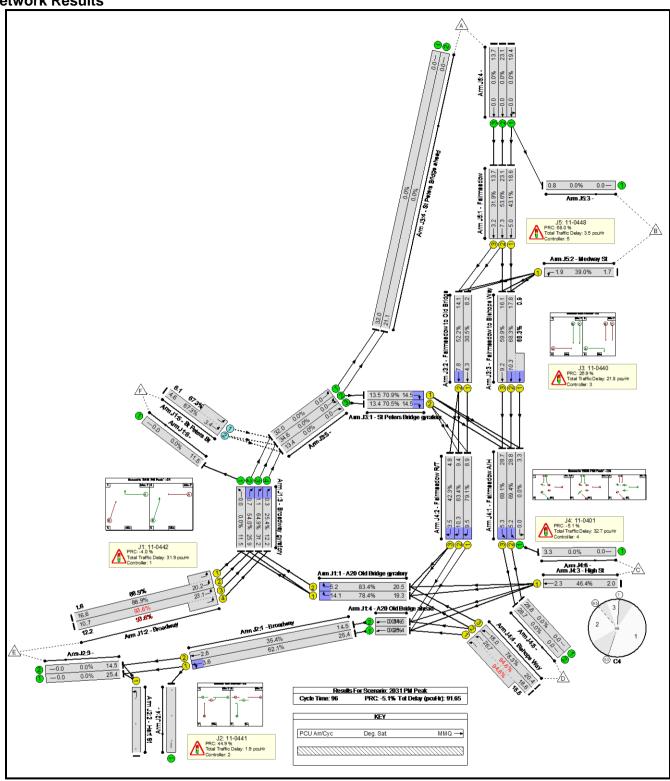
| Gyratory-exis | sting.lsg3x                           |                            | _                        |  |  |   |  |   |  |                                |   | T                             |      | Page 21 |
|---------------|---------------------------------------|----------------------------|--------------------------|--|--|---|--|---|--|--------------------------------|---|-------------------------------|------|---------|
| J3:3/3        | Fairmeadow to<br>Bishops Way<br>Ahead | U                          | C3:C                     | 1  | 58   | 437   | 1940   | 1090  | 40.1%  | 1.7                            | 13.9  | 4.5                           | 6.1  | 6.4     |
| J4:1/2        | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 85   | 885   | 1940   | 1589  | 55.7%  | 1.0                            | 4.0   | 2.5                           | 3.7  | 4.3     |
| J4:1/3        | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 85   | 886   | 1940   | 1589  | 55.8%  | 0.9                            | 3.7   | 2.1                           | 3.0  | 3.6     |
| J4:2/1        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 26   | 427   | 1848   | 475   | 89.9%  | 6.8                            | 57.7  | 5.2                           | 5.7  | 9.5     |
| J4:2/2        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 26   | 406   | 1848   | 475   | 85.4%  | 6.6                            | 58.5  | 6.3                           | 7.9  | 10.6    |
| J4:2/3        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 26   | 245   | 1848   | 475   | 51.6%  | 2.7                            | 40.1  | 3.6                           | 3.6  | 4.1     |
| J4:3/1        | High St Ahead<br>Ahead2               | U                          | C4:A                     | 1  | 7  | 104   | 1940   | 148   | 70.4%  | 2.5                            | 86.4  | 2.7                           | 2.9  | 4.1     |
| J4:4/2+J4:4/1 | Bishops Way Left<br>Left2             | U                          | C4:B                     | 1  | 55   | 1168  | 1805:1805  | 718+570   | 90.7 :<br>90.7%  | 10.2                           | 31.4  | 8.5                           | 18.5 | 23.0    |
| → J4:4/3      | Bishops Way Left                      | U                          | C4:B                     | 1  | 55   | 709   | 1805   | 963   | 73.6%  | 5.1                            | 25.9  | 9.3                           | 15.8 | 17.1    |
| J5:1/1        | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 88   | 552   | 1940   | 1644  | 33.6%  | 0.5                            | 3.4   | 2.1                           | 3.4  | 3.6     |
| J5:1/2        | Fairmeadow Ahead<br>Ahead2            | U                          | C5:A                     | 1  | 88   | 838   | 1940   | 1644  | 51.0%  | 1.0                            | 4.4   | 3.3                           | 6.5  | 7.0     |
| J5:1/3        | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 88   | 623   | 1940   | 1644  | 37.9%  | 0.6                            | 3.6   | 2.4                           | 4.0  | 4.3     |
| J5:2/1        | Medway St Left<br>Left2               | U                          | C5:B                     | 1  | 7  | 39  | 1940   | 148   | 26.4%  | 0.7                            | 62.2  | 1.0                           | 1.1  | 1.2     |
|               | (<br>(                                | 01<br>02<br>03<br>04<br>05 | PRC<br>PRC<br>PRC<br>PRC | for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>RC Over All I | Lanes (%):<br>Lanes (%):<br>Lanes (%):<br>Lanes (%): | 5.2<br>42.6<br>22.4<br>-0.7<br>76.6<br>-0.7 | Total Delay f<br>Total Delay f<br>Total Delay f<br>Total Delay f | or Signalled La<br>or Signalled La<br>or Signalled La<br>or Signalled La<br>or Signalled La<br>elay Over All La | nes (pcuHr):<br>nes (pcuHr):<br>nes (pcuHr):<br>nes (pcuHr): | 2.08<br>20.70<br>35.85<br>2.82 | Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s | s): 105<br>s): 105<br>s): 105 |      |         |

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Gyratory-existing.lsg3x Scenario 12: '2031 PM Peak' (FG12: '2031 PM Peak', Plan 1: 'Network Control Plan 1-existing')

**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | Α    | В  | С     | D      | Е    | F   | Tot. |
|        | Α    | 0    | 31 | 28    | 1247   | 634  | 168 | 2108 |
|        | В    | 0    | 0  | 4     | 26     | 22   | 11  | 63   |
| Origin | С    | 8    | 0  | 0     | 0      | 63   | 4   | 75   |
| Origin | D    | 1090 | 0  | 18    | 0      | 746  | 191 | 2045 |
|        | Е    | 666  | 0  | 72    | 744    | 0    | 59  | 1541 |
|        | F    | 229  | 0  | 3     | 138    | 32   | 0   | 402  |
|        | Tot. | 1993 | 31 | 125   | 2155   | 1497 | 433 | 6234 |



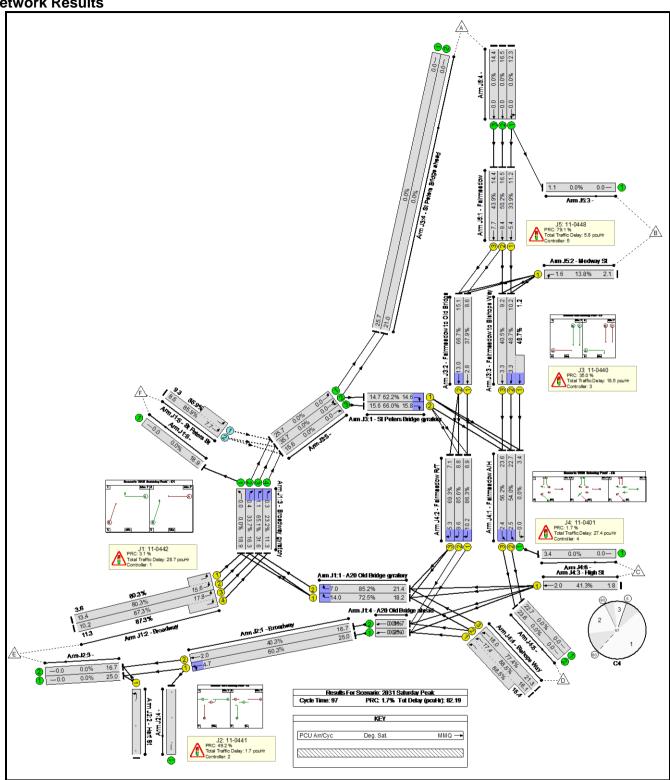
| HOLW OIK IN   | retwork iteautia                             |              |               |               |                       |                      |                      |                   |                 |                           |                                 |  |  |                            |
|---------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|---------------------------|---------------------------------|--|--|----------------------------|
| Item          | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of Uniform<br>Q At End of<br>Red(pcu) | Max. Back of<br>Uniform Queue<br>(pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1        | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 48                    | 722                  | 1805                 | 921               | 78.4%           | 4.4                       | 21.9                            | 6.8  | 12.3                                   | 14.1                       |
| J1:1/2        | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 48                    | 768                  | 1805                 | 921               | 83.4%           | 3.7                       | 17.2                            | 2.8  | 2.8                                    | 5.2                        |
| J1:2/2+J1:2/1 | Broadway Left                                | U            | C1:B          | 1             | 38                    | 683                  | 1870:1870            | 702+66            | 88.9 :<br>88.9% | 8.7                       | 45.7                            | 10.1                                       | 16.5                                   | 20.2                       |
| J1:2/3+J1:2/4 | Broadway Left                                | U            | C1:B          | 1             | 38                    | 858                  | 1870:1870            | 429+488           | 93.6 :<br>93.6% | 11.9                      | 49.9                            | 8.7  | 17.1                                   | 23.1                       |
| J1:3/2        | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 972                  | 1800                 | 1800              | 54.0%           | 0.6                       | 2.2                             | -  | 0.1                                    | 0.7                        |
| J1:3/3        | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 1169                 | 1800                 | 1800              | 64.9%           | 0.9                       | 2.9                             | -  | 0.2                                    | 1.1                        |
| J1:3/4        | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 457                  | 1800                 | 1800              | 25.4%           | 0.2                       | 1.4                             | -  | 0.2                                    | 0.3                        |
| ₫;5/2+J1:5/1  | St Peters St Left                            | 0            | -             | -             | -                     | 402                  | 1800:1800            | 257+340           | 67.3 :<br>67.3% | 1.5                       | 13.8                            | -  | 2.4                                    | 3.4                        |
| J2:1/1        | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 75                    | 954                  | 1940                 | 1536              | 62.1%           | 1.2                       | 4.6                             | 2.4  | 2.8                                    | 3.6                        |
| J2:1/2        | Broadway Ahead                               | U            | C2:A          | 1             | 75                    | 543                  | 1940                 | 1536              | 35.4%           | 0.6                       | 4.3                             | 2.2  | 2.3                                    | 2.6                        |
| J2:2/1        | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                         | -                               | -  | -                                      | -                          |
| J3:1/1        | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 36                    | 505                  | 1848                 | 712               | 70.9%           | 5.3                       | 37.9                            | 10.2                                       | 13.3                                   | 14.5                       |
| J3:1/2        | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 36                    | 502                  | 1848                 | 712               | 70.5%           | 5.5                       | 39.1                            | 11.6                                       | 13.4                                   | 14.5                       |
| J3:2/1        | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 49                    | 308                  | 1940                 | 1010              | 30.5%           | 1.2                       | 14.5                            | 3.5  | 4.0                                    | 4.3                        |
| J3:2/2        | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 49                    | 527                  | 1940                 | 1010              | 52.2%           | 2.6                       | 17.7                            | 6.3  | 7.2                                    | 7.8                        |
| J3:3/2+J3:3/1 | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 49                    | 700                  | 1940:1940            | 978+47            | 68.3 :<br>68.3% | 4.0                       | 20.6                            | 8.3  | 9.2                                    | 10.3                       |

| Gyratory-exis            | ting.isg3x                            | I                          | т-                       |  |  |  |  |   |  |  | т   |                            |      | Page 25 |
|--------------------------|---------------------------------------|----------------------------|--------------------------|--|--|--|--|---|--|--|---|----------------------------|------|---------|
| J3:3/3                   | Fairmeadow to<br>Bishops Way<br>Ahead | U                          | C3:C                     | 1  | 49   | 605  | 1940   | 1010  | 59.9%  | 3.1  | 18.7  | 7.1                        | 8.5  | 9.2     |
| J4:1/2                   | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 76   | 1080   | 1940   | 1556  | 69.4%  | 1.6  | 5.5   | 3.2                        | 4.1  | 5.2     |
| J4:1/3                   | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 76   | 1075   | 1940   | 1556  | 69.1%  | 1.7  | 5.7   | 3.4                        | 4.2  | 5.3     |
| J4:2/1                   | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 21   | 335  | 1848   | 424   | 79.1%  | 4.1  | 43.8  | 5.0                        | 7.7  | 9.5     |
| J4:2/2                   | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 21   | 353  | 1848   | 424   | 83.4%  | 4.3  | 43.7  | 3.7                        | 8.0  | 10.3    |
| J4:2/3                   | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 21   | 179  | 1848   | 424   | 42.3%  | 1.1  | 23.1  | 1.7                        | 3.1  | 3.5     |
| J4:3/1                   | High St Ahead<br>Ahead2               | U                          | C4:A                     | 1  | 7  | 75   | 1940   | 162   | 46.4%  | 1.3  | 62.6  | 1.8                        | 1.9  | 2.3     |
| J4:4/2+J4:4/1            | Bishops Way Left<br>Left2             | U                          | C4:B                     | 1  | 51   | 1279   | 1805:1805  | 737+615   | 94.6 :<br>94.6%  | 13.0   | 36.7  | 8.1                        | 19.5 | 26.7    |
| <del>り</del><br>り J4:4/3 | Bishops Way Left                      | U                          | C4:B                     | 1  | 51   | 766  | 1805   | 978   | 78.3%  | 5.5  | 25.9  | 8.9                        | 16.2 | 18.0    |
| J5:1/1                   | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 79   | 696  | 1940   | 1617  | 43.1%  | 0.8  | 4.0   | 2.7                        | 4.6  | 5.0     |
| J5:1/2                   | Fairmeadow Ahead<br>Ahead2            | U                          | C5:A                     | 1  | 79   | 866  | 1940   | 1617  | 53.6%  | 1.2  | 4.8   | 3.4                        | 6.7  | 7.3     |
| J5:1/3                   | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 79   | 515  | 1940   | 1617  | 31.9%  | 0.5  | 3.5   | 2.0                        | 3.0  | 3.2     |
| J5:2/1                   | Medway St Left<br>Left2               | U                          | C5:B                     | 1  | 7  | 63   | 1940   | 162   | 39.0%  | 1.0  | 59.8  | 1.5                        | 1.6  | 1.9     |
|                          | (                                     | C1<br>C2<br>C3<br>C4<br>C5 | PRC<br>PRC<br>PRC<br>PRC | of for Signalled of Signalled | d Lanes (%):<br>d Lanes (%):<br>d Lanes (%):<br>d Lanes (%): | -4.0<br>44.9<br>26.9<br>-5.1<br>68.0<br>-5.1 | Total Delay f<br>Total Delay f<br>Total Delay f<br>Total Delay f | for Signalled La<br>for Signalled La<br>for Signalled La<br>for Signalled La<br>for Signalled La<br>relay Over All La | ines (pcuHr):<br>ines (pcuHr):<br>ines (pcuHr):<br>ines (pcuHr): | 28.62<br>1.86<br>21.75<br>32.69<br>3.48<br>91.65 | Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s | s): 96<br>s): 96<br>s): 96 |      |         |

**Basic Results Summary** Created 03/04/2019 Gyratory-existing.lsg3x Scenario 13: '2031 Saturday Peak' (FG13: '2031 Saturday Peak', Plan 1: 'Network Control Plan 1-existing') Page 26

**Traffic Flows, Actual** Actual Flow:

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | Α    | В  | С     | D      | Е    | F   | Tot. |
|        | Α    | 0    | 41 | 43    | 681    | 587  | 252 | 1604 |
|        | В    | 1    | 0  | 1     | 37     | 27   | 11  | 77   |
| Origin | С    | 2    | 0  | 0     | 0      | 64   | 0   | 66   |
| Origin | D    | 886  | 0  | 12    | 0      | 830  | 304 | 2032 |
|        | Е    | 498  | 0  | 67    | 730    | 0    | 133 | 1428 |
|        | F    | 347  | 0  | 2     | 271    | 41   | 0   | 661  |
|        | Tot. | 1734 | 41 | 125   | 1719   | 1549 | 700 | 5868 |



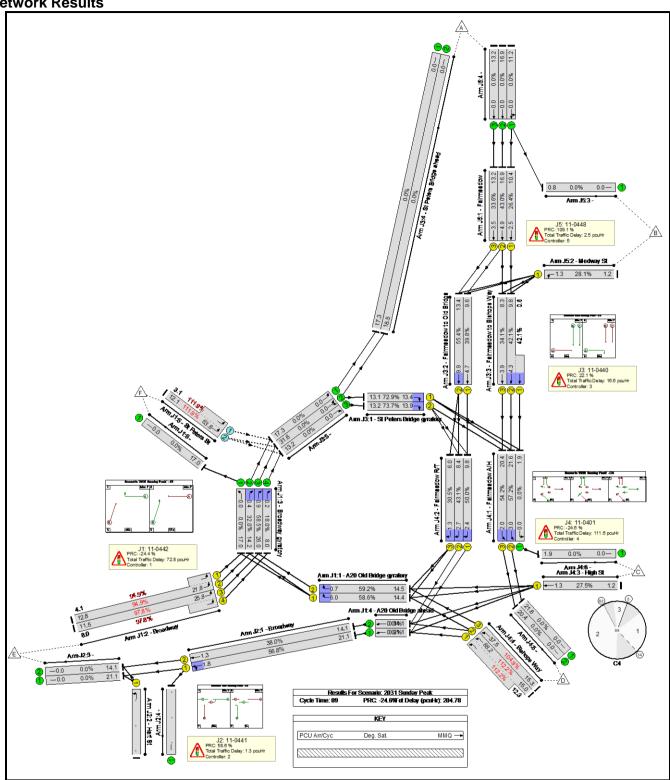
| Total Negation                         |  |              |               |               |                       |                      |                      |                |                 |                           |                                 |  |  |                            |
|--|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|----------------|-----------------|---------------------------|---------------------------------|--|--|----------------------------|
| Item                                   | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity (pcu) | Deg<br>Sat (%)  | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of Uniform<br>Q At End of<br>Red(pcu) | Max. Back of<br>Uniform Queue<br>(pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1                                 | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 49                    | 675                  | 1805                 | 930            | 72.5%           | 4.3                       | 22.8                            | 9.3  | 12.7                                   | 14.0                       |
| J1:1/2                                 | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 49                    | 793                  | 1805                 | 930            | 85.2%           | 4.6                       | 20.8                            | 4.2  | 4.2                                    | 7.0                        |
| J1:2/2+J1:2/1                          | Broadway Left                                | U            | C1:B          | 1             | 38                    | 631                  | 1870:1870            | 620+166        | 80.3 :<br>80.3% | 6.3                       | 36.0                            | 8.7  | 13.7                                   | 15.6                       |
| J1:2/3+J1:2/4                          | Broadway Left                                | U            | C1:B          | 1             | 38                    | 797                  | 1870:1870            | 434+479        | 87.3 :<br>87.3% | 8.5                       | 38.5                            | 7.9  | 14.5                                   | 17.8                       |
| J1:3/2                                 | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 606                  | 1800                 | 1800           | 33.7%           | 0.3                       | 1.5                             | -  | 0.1                                    | 0.4                        |
| J1:3/3                                 | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 1172                 | 1800                 | 1800           | 65.1%           | 0.9                       | 2.9                             | -  | 0.2                                    | 1.1                        |
| J1:3/4                                 | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 418                  | 1800                 | 1800           | 23.2%           | 0.2                       | 1.4                             | -  | 0.2                                    | 0.3                        |
| <del>/</del> 3i <sup>5/2</sup> +J1:5/1 | St Peters St Left                            | 0            | -             | -             | -                     | 661                  | 1800:1800            | 366+404        | 85.9 :<br>85.9% | 3.6                       | 19.8                            | -  | 4.8                                    | 7.7                        |
| J2:1/1                                 | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 76                    | 929                  | 1940                 | 1540           | 60.3%           | 1.2                       | 4.7                             | 2.9  | 4.0                                    | 4.7                        |
| J2:1/2                                 | Broadway Ahead                               | U            | C2:A          | 1             | 76                    | 620                  | 1940                 | 1540           | 40.3%           | 0.5                       | 3.0                             | 1.3  | 1.7                                    | 2.0                        |
| J2:2/1                                 | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -              | -               | -                         | -                               | -  | -                                      | -                          |
| J3:1/1                                 | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 45                    | 545                  | 1848                 | 876            | 62.2%           | 5.0                       | 33.1                            | 10.7                                       | 13.7                                   | 14.6                       |
| J3:1/2                                 | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 45                    | 578                  | 1848                 | 876            | 66.0%           | 5.6                       | 35.0                            | 11.7                                       | 14.8                                   | 15.8                       |
| J3:2/1                                 | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 41                    | 318                  | 1940                 | 840            | 37.9%           | 1.4                       | 15.7                            | 2.5  | 2.5                                    | 2.8                        |
| J3:2/2                                 | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 41                    | 560                  | 1940                 | 840            | 66.7%           | 3.1                       | 20.0                            | 4.4  | 12.0                                   | 13.0                       |
| J3:3/2+J3:3/1                          | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 41                    | 422                  | 1940:1940            | 777+90         | 48.7 :<br>48.7% | 1.9                       | 15.9                            | 2.8  | 2.8                                    | 3.3                        |

| Gyratory-exis | sting.isg3x                           | I                          | T                        |  |  |   |  |  |  |  | 1   |                            |      | Page 29 |
|---------------|---------------------------------------|----------------------------|--------------------------|--|--|---|--|--|--|--|---|----------------------------|------|---------|
| J3:3/3        | Fairmeadow to<br>Bishops Way<br>Ahead | U                          | C3:C                     | 1  | 41   | 340                                       | 1940   | 840  | 40.5%  | 1.5  | 16.4  | 3.0                        | 3.0  | 3.3     |
| J4:1/2        | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 77   | 842                                       | 1940   | 1560   | 54.0%  | 0.8  | 3.5   | 1.8                        | 2.0  | 2.5     |
| J4:1/3        | Fairmeadow A/H<br>Ahead               | U                          | C4:D                     | 1  | 77   | 877                                       | 1940   | 1560   | 56.2%  | 0.9  | 3.5   | 1.6                        | 1.8  | 2.4     |
| J4:2/1        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 19   | 329                                       | 1848   | 381  | 86.3%  | 4.5  | 48.9  | 2.6                        | 7.4  | 10.2    |
| J4:2/2        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 19   | 326                                       | 1848   | 381  | 85.6%  | 4.3  | 47.1  | 2.6                        | 6.9  | 9.6     |
| J4:2/3        | Fairmeadow R/T<br>Right               | U                          | C4:C                     | 1  | 19   | 264                                       | 1848   | 381  | 69.3%  | 2.2  | 29.4  | 1.6                        | 4.2  | 5.3     |
| J4:3/1        | High St Ahead<br>Ahead2               | U                          | C4:A                     | 1  | 7  | 66  | 1940   | 160  | 41.3%  | 1.1  | 61.3  | 1.6                        | 1.7  | 2.0     |
| J4:4/2+J4:4/1 | Bishops Way Left<br>Left2             | U                          | C4:B                     | 1  | 54   | 1240                                      | 1805:1805  | 757+644  | 88.5 :<br>88.5%  | 8.5  | 24.6  | 7.4                        | 13.7 | 17.4    |
| (C) J4:4/3    | Bishops Way Left                      | U                          | C4:B                     | 1  | 54   | 792                                       | 1805   | 1023   | 77.4%  | 5.3  | 23.9  | 8.8                        | 16.3 | 18.0    |
| J5:1/1        | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 60   | 414                                       | 1940   | 1220   | 33.9%  | 1.2  | 10.7  | 3.9                        | 5.2  | 5.4     |
| J5:1/2        | Fairmeadow Ahead<br>Ahead2            | U                          | C5:A                     | 1  | 60   | 613                                       | 1940   | 1220   | 50.2%  | 2.2  | 12.7  | 5.8                        | 8.9  | 9.4     |
| J5:1/3        | Fairmeadow Ahead                      | U                          | C5:A                     | 1  | 60   | 536                                       | 1940   | 1220   | 43.9%  | 1.8  | 11.9  | 5.1                        | 7.3  | 7.7     |
| J5:2/1        | Medway St Left<br>Left2               | U                          | C5:B                     | 1  | 27   | 77  | 1940   | 560  | 13.8%  | 0.6  | 29.3  | 1.4                        | 1.5  | 1.6     |
|               | (                                     | C1<br>C2<br>C3<br>C4<br>C5 | PRC<br>PRC<br>PRC<br>PRC | for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>for Signalled<br>RC Over All I | d Lanes (%):<br>d Lanes (%):<br>d Lanes (%):<br>d Lanes (%): | 3.1<br>49.2<br>35.0<br>1.7<br>79.1<br>1.7 | Total Delay f<br>Total Delay f<br>Total Delay f<br>Total Delay f | for Signalled La<br>for Signalled La<br>for Signalled La<br>for Signalled La<br>for Signalled La<br>elay Over All La | nes (pcuHr):<br>nes (pcuHr):<br>nes (pcuHr):<br>nes (pcuHr): | 23.70<br>1.73<br>18.54<br>27.42<br>5.79<br>82.19 | Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s<br>Cycle Time (s | s): 97<br>s): 97<br>s): 97 |      |         |

Basic Results Summary Created 03/04/2019 Gyratory-existing.lsg3x Scenario 14: '2031 Sunday Peak' (FG14: '2031 Sunday Peak', Plan 1: 'Network Control Plan 1-existing') Page 30

**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | А    | В  | С     | D      | Е    | F   | Tot. |
|        | Α    | 0    | 32 | 24    | 704    | 679  | 232 | 1671 |
|        | В    | 0    | 0  | 0     | 27     | 13   | 9   | 49   |
| Origin | С    | 4    | 0  | 0     | 0      | 36   | 8   | 48   |
| Origin | D    | 669  | 0  | 10    | 0      | 734  | 307 | 1720 |
|        | Е    | 688  | 0  | 44    | 573    | 0    | 164 | 1469 |
|        | F    | 127  | 0  | 1     | 442    | 48   | 0   | 618  |
|        | Tot. | 1488 | 32 | 79    | 1746   | 1510 | 720 | 5575 |



| Hetwerk results |  |              |               |               |                       |                      |                      |                   |                   |                           |                                 |  |  |                            |
|-----------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-------------------|---------------------------|---------------------------------|--|--|----------------------------|
| Item            | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg Sat<br>(%)    | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of Uniform<br>Q At End of<br>Red(pcu) | Max. Back of<br>Uniform Queue<br>(pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1          | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 48                    | 622                  | 1805                 | 994               | 58.6%             | 2.2                       | 13.7                            | 5.0  | 5.3                                    | 6.0                        |
| J1:1/2          | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 48                    | 617                  | 1805                 | 994               | 59.2%             | 0.7                       | 4.4                             | 0.0  | 0.0                                    | 0.7                        |
| J1:2/2+J1:2/1   | Broadway Left                                | U            | C1:B          | 1             | 31                    | 681                  | 1870:1870            | 545+173           | 94.9 :<br>94.9%   | 11.9                      | 62.7                            | 9.1  | 15.0                                   | 21.8                       |
| J1:2/3+J1:2/4   | Broadway Left                                | U            | C1:B          | 1             | 31                    | 788                  | 1870:1870            | 474+331           | 97.8 :<br>97.8%   | 16.0                      | 73.0                            | 8.5  | 15.6                                   | 25.8                       |
| J1:3/2          | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 583                  | 1800                 | 1800              | 32.0%             | 0.2                       | 1.5                             | -  | 0.1                                    | 0.4                        |
| J1:3/3          | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 1081                 | 1800                 | 1800              | 58.5%             | 0.7                       | 2.5                             | -  | 0.2                                    | 0.9                        |
| J1:3/4          | Broadway gyratory<br>Right                   | U            | -             | -             | -                     | 324                  | 1800                 | 1800              | 18.0%             | 0.1                       | 1.3                             | -  | 0.1                                    | 0.2                        |
| ტ;5/2+J1:5/1    | St Peters St Left                            | 0            | -             | -             | -                     | 618                  | 1800:1800            | 439+113           | 111.9 :<br>111.9% | 41.0                      | 238.9                           | -  | 26.7                                   | 63.8                       |
| J2:1/1          | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 68                    | 908                  | 1940                 | 1504              | 56.8%             | 0.8                       | 3.5                             | 1.0  | 1.2                                    | 1.8                        |
| J2:1/2          | <b>Broadway Ahead</b>                        | U            | C2:A          | 1             | 68                    | 602                  | 1940                 | 1504              | 38.0%             | 0.5                       | 2.9                             | 0.9  | 1.0                                    | 1.3                        |
| J2:2/1          | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -                 | -                         | -                               | -  | -                                      | -                          |
| J3:1/1          | St Peters Bridge gyratory Right              | U            | C3:A          | 1             | 34                    | 557                  | 1848                 | 727               | 72.9%             | 4.6                       | 31.2                            | 8.4  | 12.1                                   | 13.4                       |
| J3:1/2          | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 34                    | 561                  | 1848                 | 727               | 73.7%             | 4.8                       | 32.1                            | 8.8  | 12.6                                   | 13.9                       |
| J3:2/1          | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 44                    | 390                  | 1940                 | 981               | 39.8%             | 1.6                       | 14.8                            | 4.0  | 4.3                                    | 4.7                        |
| J3:2/2          | Fairmeadow to Old<br>Bridge Ahead            | U            | C3:B          | 1             | 44                    | 543                  | 1940                 | 981               | 55.4%             | 2.6                       | 17.2                            | 5.4  | 9.2                                    | 9.9                        |
| J3:3/2+J3:3/1   | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 44                    | 421                  | 1940:1940            | 942+57            | 42.1 :<br>42.1%   | 1.7                       | 14.9                            | 3.9  | 3.9                                    | 4.3                        |

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|---------------|---|---|------|---|----|------|--|--|--|--|---|----------------------|------|---------|
| J3:3/3        | Fairmeadow to<br>Bishops Way<br>Ahead   | U | C3:C | 1 | 44 | 334  | 1940   | 981  | 34.1%  | 1.3  | 14.2  | 3.5                  | 3.7  | 3.9     |
| J4:1/2        | Fairmeadow A/H<br>Ahead   | U | C4:D | 1 | 69 | 899  | 1940   | 1526   | 57.2%  | 1.0  | 4.0   | 1.9                  | 2.3  | 3.0     |
| J4:1/3        | Fairmeadow A/H<br>Ahead   | U | C4:D | 1 | 69 | 847  | 1940   | 1526   | 54.2%  | 0.8  | 3.4   | 1.5                  | 1.5  | 2.0     |
| J4:2/1        | Fairmeadow R/T<br>Right   | U | C4:C | 1 | 37 | 395  | 1848   | 789  | 50.0%  | 1.4  | 12.9  | 1.9                  | 1.9  | 2.4     |
| J4:2/2        | Fairmeadow R/T<br>Right   | U | C4:C | 1 | 37 | 345  | 1848   | 789  | 43.1%  | 1.3  | 13.6  | 2.3                  | 2.4  | 2.7     |
| J4:2/3        | Fairmeadow R/T<br>Right   | U | C4:C | 1 | 37 | 241  | 1848   | 789  | 30.5%  | 0.8  | 11.3  | 1.1                  | 1.1  | 1.3     |
| J4:3/1        | High St Ahead<br>Ahead2   | U | C4:A | 1 | 7  | 48   | 1940   | 174  | 27.5%  | 0.7  | 52.0  | 1.1                  | 1.1  | 1.3     |
| J4:4/2+J4:4/1 | Bishops Way Left<br>Left2   | U | C4:B | 1 | 28 | 1103 | 1805:1805  | 541+442  | 112.2 :<br>112.2%  | 77.7   | 253.7   | 11.4                 | 24.1 | 88.2    |
| တ<br>ယ J4:4/3 | Bishops Way Left  | U | C4:B | 1 | 28 | 617  | 1805   | 588  | 104.9%   | 27.9   | 162.9   | 10.7                 | 16.0 | 37.5    |
| J5:1/1        | Fairmeadow Ahead  | U | C5:A | 1 | 72 | 420  | 1940   | 1591   | 26.4%  | 0.4  | 3.4   | 1.6                  | 2.3  | 2.5     |
| J5:1/2        | Fairmeadow Ahead<br>Ahead2  | U | C5:A | 1 | 72 | 685  | 1940   | 1591   | 43.0%  | 0.8  | 4.2   | 2.7                  | 4.6  | 4.9     |
| J5:1/3        | Fairmeadow Ahead  | U | C5:A | 1 | 72 | 534  | 1940   | 1591   | 33.6%  | 0.5  | 3.7   | 2.1                  | 3.3  | 3.5     |
| J5:2/1        | Medway St Left<br>Left2   | U | C5:B | 1 | 7  | 49   | 1940   | 174  | 28.1%  | 0.7  | 52.1  | 1.1                  | 1.1  | 1.3     |
|               | C1 PRC for Signalled Lanes (%): C2 PRC for Signalled Lanes (%): C3 PRC for Signalled Lanes (%): C4 PRC for Signalled Lanes (%): C5 PRC for Signalled Lanes (%): PRC Over All Lanes (%): |   |      |   |    |      | Total Delay<br>Total Delay<br>Total Delay<br>Total Delay | for Signalled La<br>for Signalled La<br>for Signalled La<br>for Signalled La<br>for Signalled La<br>Delay Over All L | anes (pcuHr):<br>anes (pcuHr):<br>anes (pcuHr):<br>anes (pcuHr): | 30.77<br>1.28<br>16.63<br>111.57<br>2.45<br>204.78 | Cycle Time (s): | : 89<br>: 89<br>: 89 |      |         |

|              |             | e FIOV      |              |              |                                |                                |   |   |
|--------------|-------------|-------------|--------------|--------------|--------------------------------|--------------------------------|---|---|
| Route<br>Num | Org<br>Zone | Org<br>Lane | Dest<br>Zone | Dest<br>Lane | Scenario 7:<br>2019 AM<br>Peak | Scenario 8:<br>2019 PM<br>Peak | Scenario 9:<br>2019<br>Saturday<br>Peak | Scenario<br>10:<br>2019<br>Sunday<br>Peak |
| 40           | Α           | J5:4/1      | В            | J5:3/1       | 91                             | 28                             | 37                                      | 29  |
| 21           | Α           | J5:4/1      | С            | J4:6/1       | 33                             | 25                             | 38                                      | 21  |
| 20           | Α           | J5:4/1      | D            | J4:5/1       | 470                            | 597                            | 334                                     | 348                                       |
| 34           | Α           | J5:4/2      | D            | J4:5/2       | 392                            | 526                            | 274                                     | 281                                       |
| 6            | Α           | J5:4/3      | Е            | J2:3/2       | 360                            | 293                            | 249                                     | 288                                       |
| 30           | Α           | J5:4/2      | Е            | J2:3/1       | 376                            | 278                            | 275                                     | 318                                       |
| 18           | Α           | J5:4/3      | F            | J1:6/1       | 216                            | 151                            | 225                                     | 207                                       |
| 44           | В           | J5:2/1      | Α            | J3:4/2       | 1                              | 0                              | 0                                       | 0   |
| 45           | В           | J5:2/1      | Α            | J3:4/1       | 1                              | 0                              | 1                                       | 0   |
| 50           | В           | J5:2/1      | С            | J4:6/1       | 2                              | 4                              | 1                                       | 0   |
| 49           | В           | J5:2/1      | D            | J4:5/1       | 5                              | 2                              | 6                                       | 2   |
| 48           | В           | J5:2/1      | D            | J4:5/2       | 9                              | 21                             | 27                                      | 22  |
| 41           | В           | J5:2/1      | Е            | J2:3/2       | 5                              | 4                              | 11                                      | 5   |
| 47           | В           | J5:2/1      | Е            | J2:3/1       | 6                              | 16                             | 13                                      | 7   |
| 46           | В           | J5:2/1      | F            | J1:6/1       | 7                              | 10                             | 10                                      | 8   |
| 24           | С           | J4:3/1      | Α            | J3:4/2       | 1                              | 5                              | 2                                       | 4   |
| 22           | С           | J4:3/1      | Α            | J3:4/1       | 0                              | 2                              | 0                                       | 0   |
| 32           | С           | J4:3/1      | Е            | J2:3/2       | 42                             | 29                             | 26                                      | 19  |
| 11           | С           | J4:3/1      | Е            | J2:3/1       | 33                             | 28                             | 31                                      | 13  |
| 13           | С           | J4:3/1      | F            | J1:6/1       | 19                             | 4                              | 0                                       | 7   |
| 25           | D           | J4:4/2      | Α            | J3:4/1       | 146                            | 319                            | 129                                     | 49  |
| 26           | D           | J4:4/3      | Α            | J3:4/2       | 608                            | 663                            | 662                                     | 548                                       |
| 36           | D           | J4:4/3      | С            | J4:6/1       | 18                             | 16                             | 11                                      | 9   |
| 2            | D           | J4:4/2      | Е            | J2:3/2       | 202                            | 155                            | 222                                     | 194                                       |
| 1            | D           | J4:4/2      | Е            | J2:3/1       | 500                            | 517                            | 519                                     | 461                                       |
| 3            | D           | J4:4/2      | F            | J1:6/1       | 248                            | 172                            | 271                                     | 274                                       |
| 27           | E           | J1:2/3      | Α            | J3:4/2       | 71                             | 60                             | 0                                       | 147                                       |
| 28           | E           | J1:2/2      | Α            | J3:4/1       | 567                            | 540                            | 445                                     | 467                                       |
| 37           | Е           | J1:2/3      | С            | J4:6/1       | 82                             | 65                             | 60                                      | 39  |
| 19           | Е           | J1:2/3      | D            | J4:5/1       | 252                            | 257                            | 245                                     | 233                                       |
| 8            | Е           | J1:2/3      | D            | J4:5/2       | 411                            | 413                            | 407                                     | 279                                       |
| 9            | E           | J1:2/3      | E            | J2:3/1       | 0                              | 0                              | 0                                       | 0   |
| 4            | E           | J1:2/2      | F            | J1:6/1       | 46                             | 53                             | 119                                     | 146                                       |
| 29           | F           | J1:5/2      | Α            | J3:4/2       | 0                              | 0                              | 0                                       | 0   |
| 31           | F           | J1:5/2      | Α            | J3:4/1       | 249                            | 206                            | 310                                     | 113                                       |
| 33           | F           | J1:5/2      | С            | J4:6/1       | 3                              | 3                              | 2                                       | 1   |
| 12           | F           | J1:5/2      | D            | J4:5/1       | 71                             | 111                            | 163                                     | 210                                       |
| 5            | F           | J1:5/2      | D            | J4:5/2       | 14                             | 13                             | 79                                      | 185                                       |

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|    | , |        |   |        |    |    |    |    |
|----|---|--------|---|--------|----|----|----|----|
| 38 | F | J1:5/2 | Е | J2:3/2 | 11 | 15 | 31 | 36 |
| 7  | F | J1:5/2 | Е | J2:3/1 | 6  | 14 | 6  | 7  |

Basic Results Summary Gyratory-existing.lsg3x

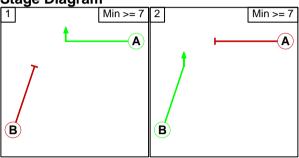
| Route<br>Num | Org<br>Zone     | Org<br>Lane | Dest<br>Zone | Dest<br>Lane | Scenario<br>11:<br>2031 AM<br>Peak | Scenario<br>12:<br>2031 PM<br>Peak | Scenario<br>13:<br>2031<br>Saturday<br>Peak | Scenario<br>14:<br>2031<br>Sunday<br>Peak |
|--------------|-----------------|-------------|--------------|--------------|------------------------------------|------------------------------------|---|---|
| 40           | А               | J5:4/1      | В            | J5:3/1       | 99                                 | 31                                 | 41  | 32  |
| 21           | Α               | J5:4/1      | С            | J4:6/1       | 36                                 | 28                                 | 43  | 24  |
| 20           | Α               | J5:4/1      | D            | J4:5/1       | 516                                | 668                                | 371   | 396                                       |
| 34           | Α               | J5:4/2      | D            | J4:5/2       | 424                                | 579                                | 310   | 308                                       |
| 6            | А               | J5:4/3      | Е            | J2:3/2       | 388                                | 347                                | 284   | 302                                       |
| 30           | А               | J5:4/2      | Е            | J2:3/1       | 414                                | 287                                | 303   | 377                                       |
| 18           | А               | J5:4/3      | F            | J1:6/1       | 235                                | 168                                | 252   | 232                                       |
| 44           | В               | J5:2/1      | Α            | J3:4/2       | 0                                  | 0                                  | 0   | 0   |
| 45           | В               | J5:2/1      | А            | J3:4/1       | 2                                  | 0                                  | 1   | 0   |
| 50           | В               | J5:2/1      | С            | J4:6/1       | 2                                  | 4                                  | 1   | 0   |
| 49           | В               | J5:2/1      | D            | J4:5/1       | 2                                  | 0                                  | 7   | 1   |
| 48           | В               | J5:2/1      | D            | J4:5/2       | 13                                 | 26                                 | 30  | 26  |
| 41           | В               | J5:2/1      | Е            | J2:3/2       | 6                                  | 1                                  | 12  | 0   |
| 47           | В               | J5:2/1      | Е            | J2:3/1       | 6                                  | 21                                 | 15  | 13  |
| 46           | В               | J5:2/1      | F            | J1:6/1       | 8                                  | 11                                 | 11  | 9   |
| 24           | С               | J4:3/1      | Α            | J3:4/2       | 0                                  | 2                                  | 1   | 0   |
| 22           | С               | J4:3/1      | Α            | J3:4/1       | 1                                  | 6                                  | 1   | 4   |
| 32           | С               | J4:3/1      | Е            | J2:3/2       | 35                                 | 26                                 | 34  | 19  |
| 11           | С               | J4:3/1      | Е            | J2:3/1       | 47                                 | 37                                 | 30  | 17  |
| 13           | С               | J4:3/1      | F            | J1:6/1       | 21                                 | 4                                  | 0   | 8   |
| 25           | <br>  D         | J4:4/2      | А            | J3:4/1       | 133                                | 342                                | 106   | 62  |
| 26           | D               | J4:4/3      | A            | J3:4/2       | 689                                | 748                                | 780   | 607                                       |
| 36           | D               | J4:4/3      | С            | J4:6/1       | 20                                 | 18                                 | 12  | 10  |
| 2            | D               | J4:4/2      | Е            | J2:3/2       | 248                                | 164                                | 260   | 238                                       |
| 1            | D               | J4:4/2      | Е            | J2:3/1       | 517                                | 582                                | 570   | 496                                       |
| 3            | <br>  D         | J4:4/2      | F            | J1:6/1       | 270                                | 191                                | 304   | 307                                       |
| 27           | E               | J1:2/3      | A            | J3:4/2       | 54                                 | 42                                 | 0   | 171                                       |
| 28           | <u>-</u><br>  E | J1:2/2      | A            | J3:4/1       | 641                                | 624                                | 498   | 517                                       |
| 37           | <u>-</u><br>  E | J1:2/3      | С            | J4:6/1       | 89                                 | 72                                 | 67  | 44  |
| 19           | -<br>  E        | J1:2/3      | D            | J4:5/1       | 281                                | 287                                | 312   | 249                                       |
| 8            | -<br>  E        | J1:2/3      | D            | J4:5/2       | 442                                | 457                                | 418   | 324                                       |
| 9            | <u>-</u>        | J1:2/3      | E            | J2:3/1       | 0                                  | 0                                  | 0   | 0   |
| 4            | <u>-</u><br>  E | J1:2/2      | F            | J1:6/1       | 50                                 | 59                                 | 133   | 164                                       |
| 29           | -<br>  F        | J1:5/2      | A            | J3:4/2       | 0                                  | 0                                  | 0   | 0   |
| 31           | '<br>  F        | J1:5/2      | A            | J3:4/1       | 271                                | 229                                | 347   | 127                                       |
| 33           | '<br>  F        | J1:5/2      | C            | J4:6/1       | 3                                  | 3                                  | 2   | 1   |
| 12           | F               | J1:5/2      | D            | J4:5/1       | 86                                 | 125                                | 152   | 253                                       |
| 5            | l F             | J1:5/2      | D            | J4:5/2       | 7                                  | 13                                 | 119   | 189                                       |
|              |                 |             |              |              |                                    |                                    |   |   |
| 38           | F               | J1:5/2      | E            | J2:3/2       | 12                                 | 5                                  | 30  | 43  |

| Gyrator | y-exisi | ting.isg | 3X |        |   |    |    |   |
|---------|---------|----------|----|--------|---|----|----|---|
| 7       | F       | J1:5/2   | Е  | J2:3/1 | 7 | 27 | 11 | 5 |

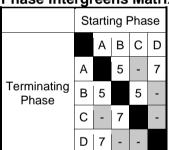
## C1 Phase Intergreens Matrix

| · ···acc ·····c·· g··c···c ····au |                |   |   |  |  |  |
|-----------------------------------|----------------|---|---|--|--|--|
|                                   | Starting Phase |   |   |  |  |  |
|                                   |                | Α | В |  |  |  |
| Terminating<br>Phase              | Α              |   | 5 |  |  |  |
|                                   | В              | 5 |   |  |  |  |

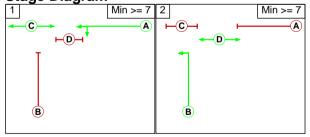
Stage Diagram



C2 Phase Intergreens Matrix



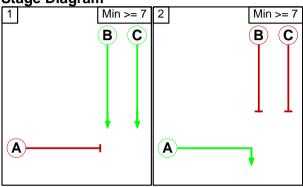
**Stage Diagram** 



C3 Phase Intergreens Matrix

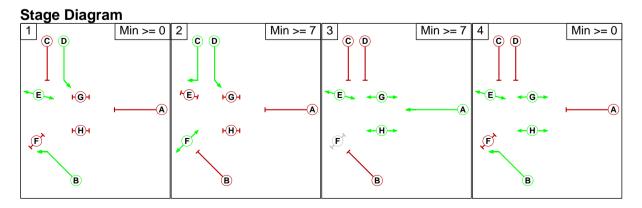
|             | Starting Phase |   |   |   |  |  |
|-------------|----------------|---|---|---|--|--|
|             |                | Α | В | O |  |  |
| Terminating | Α              |   | 6 | 6 |  |  |
| Phase       | В              | 5 |   |   |  |  |
|             | С              | 5 | - |   |  |  |

Stage Diagram



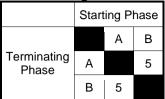
C4
Phase Intergreens Matrix

| i nase intergreens matrix |   |                |    |    |   |   |   |   |   |
|---------------------------|---|----------------|----|----|---|---|---|---|---|
|                           |   | Starting Phase |    |    |   |   |   |   |   |
|                           |   | Α              | В  | С  | D | Е | F | G | Н |
|                           | Α |                | 7  | 7  | 6 | - | - | - | - |
|                           | В | 5              |    | 5  | - | - | 5 | - | - |
|                           | С | 5              | 5  |    | - | 5 | - | - | - |
| Terminating<br>Phase      | D | 5              | -  | -  |   | - | - | 5 | 5 |
|                           | Е | -              | -  | 11 | - |   | - | - | - |
|                           | F | -              | 10 | -  | - | - |   | - | - |
|                           | G | -              | -  | -  | 8 | - | - |   | - |
|                           | Н | -              | -  | -  | 8 | - | - | - |   |

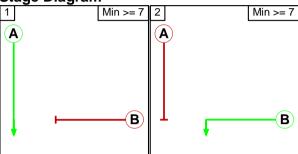


**C5** 

# **Phase Intergreens Matrix**



Stage Diagram



**User and Project Details** 

| Project:           | Maidstone Gyratory           |
|--------------------|------------------------------|
| Title:             | Proposed Layout              |
| Location:          | Maidstone                    |
| Client:            | Kent County Council          |
| Additional detail: |                              |
| File name:         | Gyratory-proposed.lsg3x      |
| Author:            | Nick Young                   |
| Company:           | Pell Frischmann              |
| Address:           | 100 Broad Street, Birmingham |

**Controller Summary** 

| O C II T CON C S Num Num O C I I C |      |                   |                   |        |        |                                |                     |  |
|------------------------------------|------|-------------------|-------------------|--------|--------|--------------------------------|---------------------|--|
| Controller                         | Туре | SCN               | Stage Stream      | Phases | Stages | Controls Junctions             | Controller<br>Notes |  |
| C1                                 | Gen  | 11/0442           | Stage Stream<br>1 | 2      | 2      | 11-0442                        |                     |  |
| C2                                 | Gen  | 11/0441           | Stage Stream<br>1 | 4      | 2      | 11-0441                        |                     |  |
| C3                                 | Gen  | 11/0440           | Stage Stream<br>1 | 4      | 2      | 11-0440                        |                     |  |
| C4                                 | Gen  | 11/0401           | Stage Stream<br>1 | 6      | 3      | 11-0401                        |                     |  |
| C5                                 | Gen  | 11/0448           | Stage Stream<br>1 | 2      | 2      | 11-0448                        |                     |  |
| C6                                 | Gen  | New<br>Controller | Stage Stream<br>1 | 2      | 2      | Fairmeadow/St Peters<br>Bridge |                     |  |

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**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | Α    | В  | С     | D      | Е    | F   | Tot. |
|        | Α    | 0    | 91 | 33    | 862    | 736  | 216 | 1938 |
|        | В    | 2    | 0  | 2     | 14     | 11   | 7   | 36   |
| Origin | С    | 1    | 0  | 0     | 0      | 75   | 19  | 95   |
| Origin | D    | 754  | 0  | 18    | 0      | 702  | 248 | 1722 |
|        | Е    | 638  | 0  | 82    | 663    | 0    | 46  | 1429 |
|        | F    | 249  | 0  | 3     | 85     | 17   | 0   | 354  |
|        | Tot. | 1644 | 91 | 138   | 1624   | 1541 | 536 | 5574 |

**Network Layout Diagram** J5: 11-0448 PRC: 69.1 % Total Traffic Delay: 2.6 pouH 2.7 0.0% 0.0 — 1 Arm.15:3 Arm J52 - Medway St J6: Fairmeadow/St Peters Bridge PRC: 38.3 % Total Traffic Delay: 3.2 pouHr Controller: 0 -1.0 24.4% 1.1 Arm J3:1 - St Pelers Bridg Arm J4.1 - Feirmeedow A/H

2.6 53.1% 24.9

3.2 56.8% 26.5 Arm 14:6. Arm 14:3 - High St m J1:2 - Bo 2 --- 9000% 1 --- 9000% Results For Scenario: 2019 AM Peak

Cycle Time: 105 PRC: -3.8% Tot Delay (pcul·h): 77.72 Dmd. In Flow/Cyc Max Unif. Q → Deg. Sat. Modelled Cruise Time

| Item          | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Turners In<br>Gaps<br>(pcu) | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of<br>Uniform Q At<br>End of<br>Red(pcu) | Max. Back of<br>Uniform<br>Queue (pcu) | Mean Max<br>Queue<br>(pcu) |
|---------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|-----------------------------|---------------------------|---------------------------------|---|--|----------------------------|
| J1:1/1        | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 39                    | 493                  | 1805                 | 688               | 71.7%           | -                           | 3.7                       | 27.0                            | 7.3   | 9.3                                    | 10.5                       |
| J1:1/2        | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 39                    | 18                   | 1805                 | 688               | 2.6%            | -                           | 0.1                       | 22.9                            | 0.5   | 0.5                                    | 0.5                        |
| J1:2/2+J1:2/1 | Broadway Left                                | U            | C1:B          | 1             | 56                    | 684                  | 1870:1870            | 951+69            | 67.1 :<br>67.1% | -                           | 4.3                       | 22.4                            | 8.5   | 14.0                                   | 15.0                       |
| J1:2/3+J1:2/4 | Broadway Left                                | U            | C1:B          | 1             | 56                    | 745                  | 1870:1870            | 579+596           | 63.4 :<br>63.4% | -                           | 3.8                       | 18.2                            | 4.8   | 8.4                                    | 9.3                        |
| J1:3/2        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 641                  | 1800                 | 1800              | 35.6%           | -                           | 0.3                       | 1.6                             | -   | 0.1                                    | 0.4                        |
| J1:3/3        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 385                  | 1800                 | 1800              | 21.4%           | -                           | 0.1                       | 1.3                             | -   | 0.2                                    | 0.3                        |
| პ J1:3/4      | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 378                  | 1800                 | 1800              | 21.0%           | -                           | 0.1                       | 1.3                             | -   | 0.2                                    | 0.3                        |
| J1:5/2+J1:5/1 | St Peters St<br>Ahead Left                   | 0            | -             | -             | -                     | 354                  | 1940:1940            | 332+788           | 31.6 :<br>31.6% | 708                         | 0.3                       | 3.2                             | -   | 0.8                                    | 1.1                        |
| J2:1/1        | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 84                    | 1157                 | 1940                 | 1570              | 73.7%           | -                           | 1.5                       | 4.5                             | 0.4   | 0.4                                    | 1.8                        |
| J2:1/2        | Broadway Ahead                               | U            | C2:A          | 1             | 84                    | 384                  | 1940                 | 1570              | 24.5%           | -                           | 0.5                       | 4.2                             | 2.3   | 2.4                                    | 2.6                        |
| J2:2/1        | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                           | -                         | -                               | -   | -                                      | -                          |
| J3:1/1        | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 41                    | 427                  | 1848                 | 739               | 57.8%           | -                           | 2.3                       | 19.7                            | 6.1   | 9.8                                    | 10.4                       |
| J3:1/2        | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 41                    | 441                  | 1848                 | 739               | 59.7%           | -                           | 2.2                       | 18.4                            | 5.9   | 9.9                                    | 10.7                       |
| J3:2/1        | Fairmeadow to Old Bridge Ahead               | U            | C3:B          | 1             | 53                    | 466                  | 1940                 | 998               | 46.7%           | -                           | 2.3                       | 17.7                            | 5.7   | 7.1                                    | 7.5                        |
| J3:2/2        | Fairmeadow to Old Bridge Ahead               | U            | C3:B          | 1             | 53                    | 506                  | 1940                 | 998               | 50.7%           | -                           | 2.6                       | 18.8                            | 6.2   | 9.8                                    | 10.3                       |
| J3:3/1        | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 53                    | 482                  | 1940                 | 998               | 48.3%           | -                           | 2.5                       | 18.3                            | 5.8   | 8.9                                    | 9.4                        |

| Gyratory-prop                  | oosed.lsg3x                           |   |        |   |    |      |           |         |                 |   |      |      |      |      | Page 5 |
|--------------------------------|---------------------------------------|---|--------|---|----|------|-----------|---------|-----------------|---|------|------|------|------|--------|
| J3:3/2                         | Fairmeadow to<br>Bishops Way<br>Ahead | U | C3:C   | 1 | 53 | 429  | 1940      | 998     | 43.0%           | - | 2.1  | 17.2 | 5.3  | 6.1  | 6.5    |
| J3:4/1                         | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 54 | 359  | 1940      | 1016    | 35.3%           | - | 4.1  | 40.8 | 10.3 | 10.5 | 10.7   |
| J3:4/2                         | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 54 | 395  | 1940      | 1016    | 38.9%           | - | 4.9  | 44.9 | 11.3 | 11.5 | 11.8   |
| J4:1/2+J4:1/1                  | Fairmeadow A/H<br>Ahead Left          | U | C4:D - | 1 | 86 | 909  | 1940:1940 | 1599+0  | 56.8 :<br>0.0%  | - | 0.9  | 3.7  | 2.1  | 3.2  | 3.8    |
| J4:1/3                         | Fairmeadow A/H<br>Ahead               | U | C4:D   | 1 | 86 | 853  | 1940      | 1607    | 53.1%           | - | 0.8  | 3.4  | 1.9  | 2.6  | 3.1    |
| J4:2/1                         | Fairmeadow R/T<br>Right               | U | C4:C   | 1 | 31 | 477  | 1848      | 563     | 84.7%           | • | 5.0  | 37.8 | 4.1  | 4.7  | 7.3    |
| J4:2/2                         | Fairmeadow R/T<br>Right Right2        | U | C4:C   | 1 | 31 | 512  | 1898      | 578     | 88.5%           | - | 6.0  | 42.2 | 4.3  | 4.8  | 8.3    |
| J4:3/1                         | High St Ahead<br>Ahead2               | U | C4:A   | 1 | 8  | 95   | 1940      | 166     | 57.1%           |   | 1.9  | 70.9 | 2.5  | 2.6  | 3.3    |
| J4:4/1                         | Bishops Way Left                      | U | C4:B   | 1 | 47 | 680  | 1805      | 825     | 82.4%           | - | 7.0  | 36.9 | 10.4 | 17.2 | 19.5   |
| <del>34</del>  4/2+J4:4/3<br>♣ | Bishops Way Left<br>Left2 Ahead       | U | C4:B   | 1 | 47 | 1042 | 1882:1940 | 693+423 | 93.4 :<br>93.4% |   | 12.7 | 44.0 | 9.9  | 20.5 | 26.5   |
| J5:1/1                         | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 88 | 478  | 1940      | 1644    | 29.1%           | - | 0.4  | 3.2  | 1.9  | 2.8  | 3.0    |
| J5:1/2                         | Fairmeadow<br>Ahead Ahead2            | U | C5:A   | 1 | 88 | 875  | 1940      | 1644    | 53.2%           | • | 1.1  | 4.6  | 3.4  | 7.0  | 7.6    |
| J5:1/3                         | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 88 | 494  | 1940      | 1644    | 30.0%           | - | 0.4  | 3.2  | 1.9  | 2.9  | 3.1    |
| J5:2/1                         | Medway St Left<br>Left2               | U | C5:B   | 1 | 7  | 36   | 1940      | 148     | 24.4%           | - | 0.6  | 61.7 | 1.0  | 1.0  | 1.1    |
| J6:1/1+J6:1/2                  | St Peters Bridge ahead Left           | U | C6:B   | 1 | 60 | 890  | 1940:1940 | 673+676 | 66.0 :<br>66.0% | • | 1.9  | 7.7  | 1.7  | 6.2  | 7.2    |
| J6:2/1                         | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 35 | 359  | 1940      | 665     | 54.0%           |   | 0.6  | 5.9  | 0.0  | 0.0  | 0.6    |
| J6:2/2                         | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 35 | 395  | 1940      | 665     | 59.4%           | ı | 0.7  | 6.6  | 0.0  | 0.0  | 0.7    |

| Gyratory-proposed.lsg3x |  |      |  |       |                     | Page 6 |
|-------------------------|--|------|--|-------|---------------------|--------|
| C1                      | PRC for Signalled Lanes (%):           | 25.5 | Total Delay for Signalled Lanes (pcuHr): | 11.82 | Cycle Time (s): 105 |        |
| C2                      | PRC for Signalled Lanes (%):           | 22.2 | Total Delay for Signalled Lanes (pcuHr): | 1.90  | Cycle Time (s): 105 |        |
| C3                      | Stream: 1 PRC for Signalled Lanes (%): | 50.9 | Total Delay for Signalled Lanes (pcuHr): | 23.03 | Cycle Time (s): 105 |        |
| C4                      | PRC for Signalled Lanes (%):           | -3.8 | Total Delay for Signalled Lanes (pcuHr): | 34.30 | Cycle Time (s): 105 |        |
| C5                      | PRC for Signalled Lanes (%):           | 69.1 | Total Delay for Signalled Lanes (pcuHr): | 2.58  | Cycle Time (s): 105 |        |
| C6                      | PRC for Signalled Lanes (%):           | 36.3 | Total Delay for Signalled Lanes (pcuHr): | 3.20  | Cycle Time (s): 105 |        |
|                         | PRC Over All Lanes (%):                | -3.8 | Total Delay Over All Lanes(pcuHr):       | 77.72 | -                   |        |

Basic Results Summary
Gyratory-proposed.lsg3x
Scenario 8: '2019 PM Peak' (FG8: '2019 PM Peak', Plan 1: 'Network Control Plan 1-Proposed')

**Traffic Flows, Actual** 

|         |      |      |    | Desti | nation |      |     |      |
|---------|------|------|----|-------|--------|------|-----|------|
|         |      | Α    | В  | С     | D      | Е    | F   | Tot. |
|         | Α    | 0    | 28 | 25    | 1123   | 571  | 151 | 1898 |
|         | В    | 0    | 0  | 4     | 23     | 20   | 10  | 57   |
| Outatio | С    | 7    | 0  | 0     | 0      | 57   | 4   | 68   |
| Origin  | D    | 982  | 0  | 16    | 0      | 672  | 172 | 1842 |
|         | Е    | 600  | 0  | 65    | 670    | 0    | 53  | 1388 |
|         | F    | 206  | 0  | 3     | 124    | 29   | 0   | 362  |
|         | Tot. | 1795 | 28 | 113   | 1940   | 1349 | 390 | 5615 |

**Network Layout Diagram** 0.7 0.0% 0.0 — 1 Arm.15:3 Arm J52 - Medway St J6: Fairmeadow/St Peters Bridge PRC: 34.6 % Total Traffic Delay: 6.1 pouHr Controller: 0 -1.4 35.3% 1.5 Arm J3:1 - St Pelers Bridg Arm J4.1 - Feirmeedow A/H
-5.1 64.1% 27.0
-5.5 66.5% 27.8
-6.0 0.0% 0.0 Arm 14:6. Arm 14:3 - High St vm J1:2 - Br Results For Scenario: 2019 PM Peak

Cycle Time: 96 PRC: -1.2% Tot Delay (pcuHr): 74.34 Dmd. In Flow/Cyc Max Unif. Q → Deg. Sat. Modelled Cruise Time

|               | NOTIFIC TO SOLICE                            |              |               |               |                       |                      |                      |                   |                 |                             |                           |                                 |   |  |                            |
|---------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|-----------------------------|---------------------------|---------------------------------|---|--|----------------------------|
| Item          | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Turners In<br>Gaps<br>(pcu) | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of<br>Uniform Q At<br>End of<br>Red(pcu) | Max. Back of<br>Uniform<br>Queue (pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1        | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 26                    | 344                  | 1805                 | 508               | 67.8%           | -                           | 2.8                       | 29.7                            | 4.8   | 6.1                                    | 7.1                        |
| J1:1/2        | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 26                    | 16                   | 1805                 | 508               | 3.2%            | -                           | 0.1                       | 30.4                            | 0.4   | 0.4                                    | 0.4                        |
| J1:2/2+J1:2/1 | Broadway Left                                | U            | C1:B          | 1             | 60                    | 653                  | 1870:1870            | 1099+97           | 54.6 :<br>54.6% | -                           | 2.3                       | 12.8                            | 5.6   | 9.3                                    | 9.9                        |
| J1:2/3+J1:2/4 | Broadway Left                                | U            | C1:B          | 1             | 60                    | 735                  | 1870:1870            | 688+678           | 53.8 :<br>53.8% | -                           | 2.2                       | 10.8                            | 3.4   | 4.4                                    | 5.0                        |
| J1:3/2        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 607                  | 1800                 | 1800              | 33.7%           | -                           | 0.3                       | 1.5                             | -   | 0.1                                    | 0.4                        |
| J1:3/3        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 386                  | 1800                 | 1800              | 21.4%           | -                           | 0.1                       | 1.3                             | -   | 0.2                                    | 0.3                        |
| J1:3/4        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 365                  | 1800                 | 1800              | 20.3%           | -                           | 0.1                       | 1.3                             | -   | 0.2                                    | 0.3                        |
| 5/2+J1:5/1    | St Peters St<br>Ahead Left                   | 0            | -             | -             | -                     | 362                  | 1940:1940            | 624+799           | 25.0 :<br>25.8% | 724                         | 0.2                       | 2.3                             | -   | 0.9                                    | 1.0                        |
| J2:1/1        | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 75                    | 1048                 | 1940                 | 1536              | 68.2%           | -                           | 1.1                       | 3.9                             | 0.4   | 0.4                                    | 1.4                        |
| J2:1/2        | Broadway Ahead                               | U            | C2:A          | 1             | 75                    | 301                  | 1940                 | 1536              | 19.6%           | -                           | 0.4                       | 4.4                             | 1.7   | 1.8                                    | 1.9                        |
| J2:2/1        | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                           | -                         | -                               | -   | -                                      | -                          |
| J3:1/1        | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 34                    | 449                  | 1848                 | 674               | 66.6%           | -                           | 3.5                       | 27.9                            | 7.4   | 10.0                                   | 11.0                       |
| J3:1/2        | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 34                    | 458                  | 1848                 | 674               | 68.0%           | -                           | 3.5                       | 27.4                            | 7.3   | 10.3                                   | 11.4                       |
| J3:2/1        | Fairmeadow to<br>Old Bridge Ahead            | U            | C3:B          | 1             | 51                    | 357                  | 1940                 | 1051              | 34.0%           | -                           | 1.3                       | 12.9                            | 3.1   | 4.6                                    | 4.9                        |
| J3:2/2        | Fairmeadow to<br>Old Bridge Ahead            | U            | C3:B          | 1             | 51                    | 395                  | 1940                 | 1051              | 37.6%           | -                           | 1.5                       | 14.0                            | 3.4   | 6.2                                    | 6.5                        |
| J3:3/1        | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 51                    | 593                  | 1940                 | 1051              | 56.4%           | -                           | 2.8                       | 16.8                            | 4.9   | 10.5                                   | 11.1                       |

| Gyratory-prop | oosed.Isg3x                           |   |        |   |    |      |           |         |                 |   |      |      |      |      | Page 10 |
|---------------|---------------------------------------|---|--------|---|----|------|-----------|---------|-----------------|---|------|------|------|------|---------|
| J3:3/2        | Fairmeadow to<br>Bishops Way<br>Ahead | U | C3:C   | 1 | 51 | 582  | 1940      | 1051    | 55.4%           | • | 2.6  | 16.0 | 4.9  | 10.3 | 10.9    |
| J3:4/1        | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 52 | 482  | 1940      | 1071    | 45.0%           | - | 4.7  | 35.2 | 10.9 | 11.3 | 11.7    |
| J3:4/2        | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 52 | 500  | 1940      | 1071    | 46.7%           | - | 4.8  | 34.8 | 10.8 | 11.2 | 11.6    |
| J4:1/2+J4:1/1 | Fairmeadow A/H<br>Ahead Left          | U | C4:D - | 1 | 77 | 1042 | 1940:1940 | 1568+0  | 66.5 :<br>0.0%  | • | 1.7  | 5.7  | 3.6  | 5.5  | 6.5     |
| J4:1/3        | Fairmeadow A/H<br>Ahead               | U | C4:D   | 1 | 77 | 1011 | 1940      | 1576    | 64.1%           | - | 1.5  | 5.3  | 3.4  | 5.1  | 6.0     |
| J4:2/1        | Fairmeadow R/T<br>Right               | U | C4:C   | 1 | 22 | 376  | 1848      | 443     | 84.9%           | - | 4.9  | 47.2 | 3.9  | 4.5  | 7.1     |
| J4:2/2        | Fairmeadow R/T<br>Right Right2        | U | C4:C   | 1 | 22 | 405  | 1902      | 456     | 88.9%           | - | 6.0  | 52.9 | 4.0  | 4.6  | 8.1     |
| J4:3/1        | High St Ahead<br>Ahead2               | U | C4:A   | 1 | 8  | 68   | 1940      | 182     | 37.4%           | • | 1.1  | 56.6 | 1.6  | 1.7  | 2.0     |
| G J4:4/1      | Bishops Way Left                      | U | C4:B   | 1 | 47 | 672  | 1805      | 903     | 74.5%           | - | 5.0  | 26.8 | 8.6  | 14.2 | 15.6    |
| J4:4/2+J4:4/3 | Bishops Way Left<br>Left2 Ahead       | U | C4:B   | 1 | 47 | 1170 | 1900:1940 | 736+549 | 91.0 :<br>91.0% |   | 10.5 | 32.4 | 8.6  | 17.5 | 22.2    |
| J5:1/1        | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 79 | 581  | 1940      | 1617    | 35.9%           |   | 0.6  | 3.6  | 2.3  | 3.6  | 3.8     |
| J5:1/2        | Fairmeadow<br>Ahead Ahead2            | U | C5:A   | 1 | 79 | 910  | 1940      | 1617    | 56.3%           | • | 1.3  | 5.1  | 3.5  | 7.6  | 8.2     |
| J5:1/3        | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 79 | 379  | 1940      | 1617    | 23.4%           | - | 0.3  | 3.1  | 1.5  | 2.0  | 2.2     |
| J5:2/1        | Medway St Left<br>Left2               | U | C5:B   | 1 | 7  | 57   | 1940      | 162     | 35.3%           | - | 0.9  | 58.7 | 1.4  | 1.4  | 1.7     |
| J6:1/1+J6:1/2 | St Peters Bridge ahead Left           | U | C6:B   | 1 | 50 | 813  | 1940:1940 | 636+637 | 63.9 :<br>63.9% | • | 2.7  | 11.9 | 2.6  | 5.9  | 6.8     |
| J6:2/1        | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 36 | 482  | 1940      | 748     | 64.5%           | • | 1.5  | 11.5 | 1.5  | 1.5  | 2.4     |
| J6:2/2        | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 36 | 500  | 1940      | 748     | 66.9%           | - | 1.9  | 13.8 | 2.2  | 2.2  | 3.2     |

| Basic Results Summary Gyratory-proposed.lsg3x |    |  |      |  |       |                    | Created 03/04/2019<br>Page 11 |
|---|----|--|------|--|-------|--------------------|-------------------------------|
|   | C1 | PRC for Signalled Lanes (%):           | 32.8 | Total Delay for Signalled Lanes (pcuHr): | 7.50  | Cycle Time (s): 96 |                               |
|   | C2 | PRC for Signalled Lanes (%):           | 31.9 | Total Delay for Signalled Lanes (pcuHr): | 1.51  | Cycle Time (s): 96 |                               |
|   | C3 | Stream: 1 PRC for Signalled Lanes (%): | 32.4 | Total Delay for Signalled Lanes (pcuHr): | 24.68 | Cycle Time (s): 96 |                               |
|   | C4 | PRC for Signalled Lanes (%):           | -1.2 | Total Delay for Signalled Lanes (pcuHr): | 30.63 | Cycle Time (s): 96 |                               |
|   | C5 | PRC for Signalled Lanes (%):           | 59.9 | Total Delay for Signalled Lanes (pcuHr): | 3.12  | Cycle Time (s): 96 |                               |
|   | C6 | PRC for Signalled Lanes (%):           | 34.6 | Total Delay for Signalled Lanes (pcuHr): | 6.14  | Cycle Time (s): 96 |                               |
|   |    | PRC Over All Lanes (%):                | -1.2 | Total Delay Over All Lanes(pcuHr):       | 74.34 | -                  |                               |

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Basic Results Summary

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Scenario 9: '2019 Saturday Peak' (FG9: '2019 Saturday Peak', Plan 1: 'Network Control Plan 1-Proposed')

**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | Α    | В  | С     | D      | E    | F   | Tot. |
|        | Α    | 0    | 37 | 38    | 608    | 524  | 225 | 1432 |
|        | В    | 1    | 0  | 1     | 33     | 24   | 10  | 69   |
| Origin | С    | 2    | 0  | 0     | 0      | 57   | 0   | 59   |
| Origin | D    | 791  | 0  | 11    | 0      | 741  | 271 | 1814 |
|        | Е    | 445  | 0  | 60    | 652    | 0    | 119 | 1276 |
|        | F    | 310  | 0  | 2     | 242    | 37   | 0   | 591  |
|        | Tot. | 1549 | 37 | 112   | 1535   | 1383 | 625 | 5241 |

**Network Layout Diagram** 1.0 0.0% 0.0 — 1 Arm.15:3 Arm J52 - Medway St J6: Fairmeadow/St Peters Bridge PRC: 50.0 % Total Traffic Delay: 3.0 pcuHr Controller: 0 -1.7 28.8% 1.9 Arm J3:1 - St Pelers Brid 9.4 10.1 12.1 16.8 Arm J4:6 Arm J4:3 High St 32.8% m J1:2 - Bro 2 --- 900% Results For Scenario: 2019 Salurday Peak

Cycle Time: 97 PRC: -1.9% Tot Delay (pcul-li): 69.24 Dmd. In Flow/Cyc Max Unif. Q → Deg. Sat. Modelled Cruise Time

|               | NOTIFIC TO COME                              |              |               |               |                       |                      |                      |                   |                 |                             |                           |                                 |   |  |                            |
|---------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|-----------------------------|---------------------------|---------------------------------|---|--|----------------------------|
| Item          | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Turners In<br>Gaps<br>(pcu) | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of<br>Uniform Q At<br>End of<br>Red(pcu) | Max. Back of<br>Uniform<br>Queue (pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1        | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 37                    | 509                  | 1805                 | 707               | 72.0%           | -                           | 3.2                       | 22.8                            | 6.3   | 7.6                                    | 8.9                        |
| J1:1/2        | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 37                    | 11                   | 1805                 | 707               | 1.6%            | -                           | 0.1                       | 19.5                            | 0.2   | 0.3                                    | 0.3                        |
| J1:2/2+J1:2/1 | Broadway Left                                | U            | C1:B          | 1             | 50                    | 564                  | 1870:1870            | 803+215           | 55.5 :<br>55.5% | -                           | 2.9                       | 18.5                            | 5.8   | 8.8                                    | 9.4                        |
| J1:2/3+J1:2/4 | Broadway Left                                | U            | C1:B          | 1             | 50                    | 712                  | 1870:1870            | 587+568           | 61.6 :<br>61.6% | -                           | 3.5                       | 17.6                            | 4.4   | 6.8                                    | 7.6                        |
| J1:3/2        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 448                  | 1800                 | 1800              | 24.9%           | -                           | 0.2                       | 1.4                             | -   | 0.1                                    | 0.3                        |
| J1:3/3        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 373                  | 1800                 | 1800              | 20.7%           | -                           | 0.1                       | 1.3                             | -   | 0.2                                    | 0.3                        |
| ω<br>ω J1:3/4 | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 350                  | 1800                 | 1800              | 19.4%           | -                           | 0.1                       | 1.3                             | -   | 0.2                                    | 0.3                        |
| J1:5/2+J1:5/1 | St Peters St<br>Ahead Left                   | 0            | •             | -             | -                     | 591                  | 1940:1940            | 693+765           | 40.5 :<br>40.5% | 1182                        | 0.5                       | 3.2                             | -   | 2.3                                    | 2.6                        |
| J2:1/1        | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 76                    | 1110                 | 1940                 | 1540              | 72.1%           | -                           | 1.3                       | 4.4                             | 0.3   | 0.5                                    | 1.8                        |
| J2:1/2        | Broadway Ahead                               | U            | C2:A          | 1             | 76                    | 273                  | 1940                 | 1540              | 17.7%           | -                           | 0.4                       | 4.6                             | 1.7   | 1.7                                    | 1.8                        |
| J2:2/1        | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                           | -                         |                                 | -   | -                                      | -                          |
| J3:1/1        | St Peters Bridge gyratory Right              | U            | C3:A          | 1             | 46                    | 497                  | 1848                 | 895               | 55.5%           | -                           | 1.7                       | 12.6                            | 2.3   | 8.9                                    | 9.5                        |
| J3:1/2        | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 46                    | 507                  | 1848                 | 895               | 56.6%           | -                           | 1.8                       | 12.5                            | 2.4   | 8.8                                    | 9.5                        |
| J3:2/1        | Fairmeadow to<br>Old Bridge Ahead            | U            | C3:B          | 1             | 40                    | 369                  | 1940                 | 820               | 45.0%           | -                           | 2.2                       | 21.3                            | 4.8   | 5.0                                    | 5.4                        |
| J3:2/2        | Fairmeadow to<br>Old Bridge Ahead            | U            | C3:B          | 1             | 40                    | 415                  | 1940                 | 820               | 50.6%           | -                           | 2.6                       | 22.3                            | 5.4   | 8.1                                    | 8.6                        |
| J3:3/1        | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 40                    | 374                  | 1940                 | 820               | 45.6%           | -                           | 2.2                       | 21.6                            | 4.8   | 5.0                                    | 5.4                        |

| Gyratory-prop        | oosed.lsg3x                           |   |        |   |    |      |           |         |                 |   |      |      |      |      | Page 15 |
|----------------------|---------------------------------------|---|--------|---|----|------|-----------|---------|-----------------|---|------|------|------|------|---------|
| J3:3/2               | Fairmeadow to<br>Bishops Way<br>Ahead | U | C3:C   | 1 | 40 | 306  | 1940      | 820     | 37.3%           | - | 1.7  | 20.1 | 4.2  | 4.3  | 4.6     |
| J3:4/1               | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 41 | 383  | 1940      | 840     | 45.6%           | - | 4.2  | 39.1 | 9.8  | 10.3 | 10.7    |
| J3:4/2               | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 41 | 408  | 1940      | 840     | 48.6%           | - | 4.9  | 43.1 | 10.4 | 11.0 | 11.5    |
| J4:1/2+J4:1/1        | Fairmeadow A/H<br>Ahead Left          | U | C4:D - | 1 | 78 | 871  | 1940:1940 | 1571+0  | 55.4 :<br>0.0%  | - | 0.8  | 3.4  | 1.6  | 3.0  | 3.6     |
| J4:1/3               | Fairmeadow A/H<br>Ahead               | U | C4:D   | 1 | 78 | 776  | 1940      | 1580    | 49.1%           | - | 0.6  | 3.0  | 1.3  | 1.6  | 2.1     |
| J4:2/1               | Fairmeadow R/T<br>Right               | U | C4:C   | 1 | 23 | 395  | 1848      | 457     | 86.4%           | - | 4.8  | 43.4 | 3.0  | 4.9  | 7.8     |
| J4:2/2               | Fairmeadow R/T<br>Right Right2        | U | C4:C   | 1 | 23 | 426  | 1888      | 467     | 91.2%           | - | 6.1  | 51.2 | 2.7  | 3.3  | 7.6     |
| J4:3/1               | High St Ahead<br>Ahead2               | U | C4:A   | 1 | 8  | 59   | 1940      | 180     | 32.8%           | - | 0.9  | 56.0 | 1.4  | 1.5  | 1.7     |
| J4:4/1               | Bishops Way Left                      | U | C4:B   | 1 | 47 | 715  | 1805      | 893     | 80.0%           | - | 6.0  | 30.4 | 9.3  | 16.1 | 18.1    |
| <b>00</b> 4/2+J4:4/3 | Bishops Way Left<br>Left2 Ahead       | U | C4:B   | 1 | 47 | 1099 | 1882:1940 | 754+445 | 91.7 :<br>91.7% | - | 10.7 | 35.1 | 9.0  | 18.7 | 23.7    |
| J5:1/1               | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 76 | 368  | 1940      | 1540    | 23.9%           | - | 0.4  | 4.1  | 1.8  | 2.5  | 2.6     |
| J5:1/2               | Fairmeadow<br>Ahead Ahead2            | U | C5:A   | 1 | 76 | 630  | 1940      | 1540    | 40.9%           | - | 0.9  | 5.0  | 3.1  | 5.1  | 5.4     |
| J5:1/3               | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 76 | 397  | 1940      | 1540    | 25.8%           | - | 0.5  | 4.2  | 2.0  | 2.8  | 2.9     |
| J5:2/1               | Medway St Left<br>Left2               | U | C5:B   | 1 | 11 | 69   | 1940      | 240     | 28.8%           | - | 0.9  | 49.1 | 1.6  | 1.7  | 1.9     |
| J6:1/1+J6:1/2        | St Peters Bridge ahead Left           | U | C6:B   | 1 | 54 | 758  | 1940:1940 | 668+671 | 56.6 :<br>56.6% | - | 1.6  | 7.7  | 1.9  | 6.0  | 6.7     |
| J6:2/1               | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 33 | 383  | 1940      | 680     | 56.3%           | - | 0.6  | 6.0  | 0.0  | 0.0  | 0.6     |
| J6:2/2               | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 33 | 408  | 1940      | 680     | 60.0%           | - | 0.7  | 6.6  | 0.0  | 0.0  | 0.7     |

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|-------------------------|--|-------|--|-------|--------------------|---------|
| C1                      | PRC for Signalled Lanes (%):           | 25.0  | Total Delay for Signalled Lanes (pcuHr): | 9.66  | Cycle Time (s): 97 |         |
| C2                      | PRC for Signalled Lanes (%):           | 24.9  | Total Delay for Signalled Lanes (pcuHr): | 1.70  | Cycle Time (s): 97 |         |
| C3                      | Stream: 1 PRC for Signalled Lanes (%): | 59.0  | Total Delay for Signalled Lanes (pcuHr): | 21.24 | Cycle Time (s): 97 |         |
| C4                      | PRC for Signalled Lanes (%):           | -1.9  | Total Delay for Signalled Lanes (pcuHr): | 29.98 | Cycle Time (s): 97 |         |
| C5                      | PRC for Signalled Lanes (%):           | 120.0 | Total Delay for Signalled Lanes (pcuHr): | 2.70  | Cycle Time (s): 97 |         |
| C6                      | PRC for Signalled Lanes (%):           | 50.0  | Total Delay for Signalled Lanes (pcuHr): | 3.00  | Cycle Time (s): 97 |         |
|                         | PRC Over All Lanes (%):                | -1.9  | Total Delay Over All Lanes(pcuHr):       | 69.24 |                    |         |

Basic Results Summary

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Scenario 10: '2019 Sunday Peak' (FG10: '2019 Sunday Peak', Plan 1: 'Network Control Plan 1-Proposed')

**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | Α    | В  | С     | D      | E    | F   | Tot. |
|        | Α    | 0    | 29 | 21    | 629    | 606  | 207 | 1492 |
|        | В    | 0    | 0  | 0     | 24     | 12   | 8   | 44   |
| Origin | С    | 4    | 0  | 0     | 0      | 32   | 7   | 43   |
| Origin | D    | 597  | 0  | 9     | 0      | 655  | 274 | 1535 |
|        | Е    | 614  | 0  | 39    | 512    | 0    | 146 | 1311 |
|        | F    | 113  | 0  | 1     | 395    | 43   | 0   | 552  |
|        | Tot. | 1328 | 29 | 70    | 1560   | 1348 | 642 | 4977 |

**Network Layout Diagram** 0.7 0.0% 0.0 — 1 Arm.15:3 Arm J52 - Medway St J6: Fairmeadow/St Peters Bridge PRC: 68.4 % Total Traffic Delay: 1.9 pouHr Controller: 0 -1.0 25.2% 1.1 Arm J3:1 - St Pelers Brid Arm J4.1 - Feirmeedow A/H

-1.5 49.3% 18.9

-3.0 56.4% 21.4 Arm J4:6 Arm J4:3 High St mJ1:2-Bro Results For Scenario: 2019 Sunday Peak

Cycle Time: 89 PRC: 3.8% Tot Delay (pcul-lif): 60.46 Dmd. In Flow/Cyc Max Unif. Q → Deg. Sat.

Modelled Cruise Time

| HOLWOIK INC   |  |              |               |               |                       |                      |                      |                   |                 |                             |                           |                                 |   |  |                            |
|---------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|-----------------------------|---------------------------|---------------------------------|---|--|----------------------------|
| Item          | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Turners In<br>Gaps<br>(pcu) | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of<br>Uniform Q At<br>End of<br>Red(pcu) | Max. Back of<br>Uniform<br>Queue (pcu) | Mean Max<br>Queue<br>(pcu) |
| J1:1/1        | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 32                    | 500                  | 1805                 | 669               | 74.7%           | -                           | 3.9                       | 27.8                            | 7.0   | 8.2                                    | 9.6                        |
| J1:1/2        | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 32                    | 9                    | 1805                 | 669               | 1.3%            | -                           | 0.0                       | 15.5                            | 0.2   | 0.2                                    | 0.2                        |
| J1:2/2+J1:2/1 | Broadway Left                                | U            | C1:B          | 1             | 47                    | 760                  | 1870:1870            | 841+200           | 73.0 :<br>73.0% | -                           | 4.5                       | 21.1                            | 7.3   | 13.0                                   | 14.3                       |
| J1:2/3+J1:2/4 | Broadway Left                                | U            | C1:B          | 1             | 47                    | 551                  | 1870:1870            | 656+499           | 47.7 :<br>47.7% | -                           | 2.2                       | 14.1                            | 3.4   | 4.3                                    | 4.7                        |
| J1:3/2        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 618                  | 1800                 | 1800              | 34.3%           | -                           | 0.3                       | 1.6                             | -   | 0.1                                    | 0.4                        |
| J1:3/3        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 322                  | 1800                 | 1800              | 17.9%           | -                           | 0.1                       | 1.3                             | -   | 0.2                                    | 0.3                        |
| J1:3/4        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 238                  | 1800                 | 1800              | 13.2%           | -                           | 0.1                       | 1.2                             | -   | 0.1                                    | 0.2                        |
| 5/2+J1:5/1    | St Peters St<br>Ahead Left                   | 0            | -             | -             | -                     | 552                  | 1940:1940            | 671+173           | 65.4 :<br>65.4% | 1104                        | 1.5                       | 10.0                            | -   | 6.2                                    | 7.2                        |
| J2:1/1        | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 68                    | 1036                 | 1940                 | 1504              | 68.9%           | -                           | 1.2                       | 4.1                             | 0.3   | 0.5                                    | 1.6                        |
| J2:1/2        | Broadway Ahead                               | U            | C2:A          | 1             | 68                    | 312                  | 1940                 | 1504              | 20.7%           | -                           | 0.3                       | 3.2                             | 0.9   | 1.0                                    | 1.1                        |
| J2:2/1        | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                           | -                         | -                               | -   | -                                      | -                          |
| J3:1/1        | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 40                    | 506                  | 1848                 | 851               | 59.4%           | -                           | 2.5                       | 17.6                            | 3.8   | 9.0                                    | 9.7                        |
| J3:1/2        | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 40                    | 493                  | 1848                 | 851               | 57.9%           | -                           | 2.6                       | 19.0                            | 4.5   | 8.5                                    | 9.1                        |
| J3:2/1        | Fairmeadow to Old Bridge Ahead               | U            | C3:B          | 1             | 38                    | 391                  | 1940                 | 850               | 46.0%           | -                           | 2.2                       | 19.9                            | 4.8   | 5.0                                    | 5.5                        |
| J3:2/2        | Fairmeadow to<br>Old Bridge Ahead            | U            | C3:B          | 1             | 38                    | 442                  | 1940                 | 850               | 52.0%           | -                           | 2.5                       | 20.7                            | 5.4   | 5.9                                    | 6.5                        |
| J3:3/1        | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 38                    | 361                  | 1940                 | 850               | 42.5%           | -                           | 2.0                       | 19.6                            | 4.5   | 4.6                                    | 5.0                        |

| Gyratory-prop   | oosea.isg3x                           |   | , ,    |   | ı  | 1   |           | 1       |                 |   |     |      | Т   | T    | Page 20 |
|-----------------|---------------------------------------|---|--------|---|----|-----|-----------|---------|-----------------|---|-----|------|-----|------|---------|
| J3:3/2          | Fairmeadow to<br>Bishops Way<br>Ahead | U | C3:C   | 1 | 38 | 313 | 1940      | 850     | 36.8%           | • | 1.6 | 18.5 | 3.7 | 4.2  | 4.4     |
| J3:4/1          | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 39 | 298 | 1940      | 872     | 34.2%           | - | 2.5 | 30.5 | 7.0 | 7.4  | 7.6     |
| J3:4/2          | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 39 | 299 | 1940      | 872     | 34.3%           | • | 2.9 | 34.8 | 7.0 | 7.4  | 7.7     |
| J4:1/2+J4:1/1   | Fairmeadow A/H<br>Ahead Left          | U | C4:D - | 1 | 70 | 867 | 1940:1940 | 1538+0  | 56.4 :<br>0.0%  | - | 0.9 | 3.6  | 1.6 | 3.0  | 3.6     |
| J4:1/3          | Fairmeadow A/H<br>Ahead               | U | C4:D   | 1 | 70 | 763 | 1940      | 1548    | 49.3%           | - | 0.7 | 3.2  | 1.4 | 1.5  | 2.0     |
| J4:2/1          | Fairmeadow R/T<br>Right               | U | C4:C   | 1 | 24 | 420 | 1848      | 519     | 80.9%           | - | 3.7 | 31.9 | 2.8 | 3.4  | 5.4     |
| J4:2/2          | Fairmeadow R/T<br>Right Right2        | U | C4:C   | 1 | 24 | 456 | 1895      | 532     | 85.7%           | - | 4.4 | 34.7 | 2.6 | 3.2  | 6.0     |
| J4:3/1          | High St Ahead<br>Ahead2               | U | C4:A   | 1 | 8  | 43  | 1940      | 196     | 21.9%           | • | 0.6 | 48.5 | 0.9 | 1.0  | 1.1     |
| <b>Ο</b> J4:4/1 | Bishops Way Left                      | U | C4:B   | 1 | 38 | 616 | 1805      | 791     | 77.9%           | - | 5.4 | 31.4 | 8.2 | 12.8 | 14.6    |
| J4:4/2+J4:4/3   | Bishops Way Left<br>Left2 Ahead       | U | C4:B   | 1 | 38 | 919 | 1876:1940 | 715+345 | 86.7 :<br>86.7% | - | 8.1 | 31.8 | 8.3 | 13.8 | 16.9    |
| J5:1/1          | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 72 | 355 | 1940      | 1591    | 22.3%           | - | 0.3 | 3.2  | 1.4 | 1.9  | 2.0     |
| J5:1/2          | Fairmeadow<br>Ahead Ahead2            | U | C5:A   | 1 | 72 | 677 | 1940      | 1591    | 42.5%           | - | 0.8 | 4.2  | 2.6 | 4.5  | 4.9     |
| J5:1/3          | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 72 | 431 | 1940      | 1591    | 27.1%           | - | 0.4 | 3.4  | 1.7 | 2.4  | 2.6     |
| J5:2/1          | Medway St Left<br>Left2               | U | C5:B   | 1 | 7  | 44  | 1940      | 174     | 25.2%           |   | 0.6 | 51.5 | 1.0 | 1.0  | 1.2     |
| J6:1/1+J6:1/2   | St Peters Bridge ahead Left           | U | C6:B   | 1 | 49 | 731 | 1940:1940 | 675+676 | 54.1 :<br>54.1% | • | 1.1 | 5.3  | 0.8 | 0.9  | 1.5     |
| J6:2/1          | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 30 | 298 | 1940      | 676     | 44.1%           |   | 0.4 | 4.8  | 0.0 | 0.0  | 0.4     |
| J6:2/2          | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 30 | 299 | 1940      | 676     | 44.2%           | ı | 0.4 | 4.8  | 0.0 | 0.0  | 0.4     |

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| ory-proposed.isgsx |  |       |  |       |                    |  |
|--------------------|--|-------|--|-------|--------------------|--|
| C1                 | PRC for Signalled Lanes (%):           | 20.5  | Total Delay for Signalled Lanes (pcuHr): | 10.52 | Cycle Time (s): 89 |  |
| C2                 | PRC for Signalled Lanes (%):           | 30.7  | Total Delay for Signalled Lanes (pcuHr): | 1.45  | Cycle Time (s): 89 |  |
| C3                 | Stream: 1 PRC for Signalled Lanes (%): | 51.4  | Total Delay for Signalled Lanes (pcuHr): | 18.76 | Cycle Time (s): 89 |  |
| C4                 | PRC for Signalled Lanes (%):           | 3.8   | Total Delay for Signalled Lanes (pcuHr): | 23.71 | Cycle Time (s): 89 |  |
| C5                 | PRC for Signalled Lanes (%):           | 111.5 | Total Delay for Signalled Lanes (pcuHr): | 2.14  | Cycle Time (s): 89 |  |
| C6                 | PRC for Signalled Lanes (%):           | 66.4  | Total Delay for Signalled Lanes (pcuHr): | 1.87  | Cycle Time (s): 89 |  |
|                    | PRC Over All Lanes (%):                | 3.8   | Total Delay Over All Lanes(pcuHr):       | 60.46 |                    |  |

Basic Results Summary
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Scenario 11: '2031 AM Peak' (FG11: '2031 AM Peak', Plan 1: 'Network Control Plan 1-Proposed')

**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | Α    | В  | С     | D      | Е    | F   | Tot. |
|        | Α    | 0    | 99 | 36    | 940    | 802  | 235 | 2112 |
|        | В    | 2    | 0  | 2     | 15     | 12   | 8   | 39   |
| Origin | С    | 1    | 0  | 0     | 0      | 82   | 21  | 104  |
| Origin | D    | 822  | 0  | 20    | 0      | 765  | 270 | 1877 |
|        | Е    | 695  | 0  | 89    | 723    | 0    | 50  | 1557 |
|        | F    | 271  | 0  | 3     | 93     | 19   | 0   | 386  |
|        | Tot. | 1791 | 99 | 150   | 1771   | 1680 | 584 | 6075 |

**Network Layout Diagram** J5: 11-0448
PRC: 53.8 %
Total Traffic Delay: 3.0 pouH 2.9 0.0% 0.0 — 1 Arm.15:3 Arm J52 - Medway St J6: Fairmeadow/St Peters Bridge PRC: 25.2 % Total Traffic Delay: 3.7 pouHr Controller: 0 -1.1 26.4% 1.1 Arm J3:1 - St Pelers Brid Arm J4:1 - Feirmeedow A/H

-3.0 58.0% 27.2

-3.4 61.7% 28.8

0.0% 0.0 J1: 11-0442
PRC: 17.4 %
Total Traffic Delay: 15 Arm J4:5. Arm J4:3 - High St m J1:2 - Brt Results For Scenario: 2031 AM Peak

Cycle Time: 105 PRC: -15.3% of Delay (pcul-hi): 122.67 Dmd. In Flow/Cyc Max Unif. Q → Deg. Sat. Modelled Cruise Time

| HOUNDIN INC              |  |              |               |               |                       |                      |                      |                |                 |                             |                           |                                 |   |  |                               |
|--------------------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|----------------|-----------------|-----------------------------|---------------------------|---------------------------------|---|--|-------------------------------|
| Item                     | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity (pcu) | Deg Sat<br>(%)  | Turners In<br>Gaps<br>(pcu) | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of<br>Uniform Q At<br>End of<br>Red(pcu) | Max. Back of<br>Uniform<br>Queue (pcu) | Mean<br>Max<br>Queue<br>(pcu) |
| J1:1/1                   | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 39                    | 537                  | 1805                 | 688            | 76.7%           | -                           | 4.5                       | 30.8                            | 7.8   | 11.1                                   | 12.7                          |
| J1:1/2                   | A20 Old Bridge gyratory Right                | U            | C1:A          | 1             | 39                    | 20                   | 1805                 | 688            | 2.8%            | -                           | 0.1                       | 19.1                            | 0.4   | 0.5                                    | 0.5                           |
| J1:2/2+J1:2/1            | Broadway Left                                | U            | C1:B          | 1             | 56                    | 745                  | 1870:1870            | 951+68         | 73.1 :<br>73.1% | -                           | 5.1                       | 24.5                            | 9.2   | 16.1                                   | 17.4                          |
| J1:2/3+J1:2/4            | Broadway Left                                | U            | C1:B          | 1             | 56                    | 812                  | 1870:1870            | 579+596        | 69.1 :<br>69.1% | -                           | 4.4                       | 19.5                            | 5.5   | 10.5                                   | 11.6                          |
| J1:3/2                   | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 698                  | 1800                 | 1800           | 38.8%           | -                           | 0.3                       | 1.7                             | -   | 0.1                                    | 0.5                           |
| J1:3/3                   | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 420                  | 1800                 | 1800           | 23.3%           | -                           | 0.2                       | 1.4                             | -   | 0.2                                    | 0.3                           |
| ယ<br>ယ <sub>J1:3/4</sub> | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 412                  | 1800                 | 1800           | 22.9%           | -                           | 0.2                       | 1.4                             | -   | 0.2                                    | 0.3                           |
| J1:5/2+J1:5/1            | St Peters St<br>Ahead Left                   | 0            | -             | -             | -                     | 386                  | 1940:1940            | 326+769        | 35.2 :<br>35.2% | 772                         | 0.4                       | 3.8                             | -   | 1.2                                    | 1.4                           |
| J2:1/1                   | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 84                    | 1288                 | 1940                 | 1570           | 82.0%           | -                           | 2.3                       | 6.5                             | 0.4   | 0.4                                    | 2.6                           |
| J2:1/2                   | Broadway Ahead                               | U            | C2:A          | 1             | 84                    | 392                  | 1940                 | 1570           | 25.0%           | -                           | 0.5                       | 4.4                             | 2.5   | 2.6                                    | 2.7                           |
| J2:2/1                   | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -              | -               | -                           | -                         | -                               | -   | -                                      | -                             |
| J3:1/1                   | St Peters Bridge gyratory Right              | U            | C3:A          | 1             | 41                    | 467                  | 1848                 | 739            | 63.1%           | -                           | 2.7                       | 20.6                            | 6.4   | 10.6                                   | 11.5                          |
| J3:1/2                   | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 41                    | 480                  | 1848                 | 739            | 64.9%           | -                           | 2.6                       | 19.3                            | 6.3   | 10.9                                   | 11.8                          |
| J3:2/1                   | Fairmeadow to<br>Old Bridge Ahead            | U            | C3:B          | 1             | 53                    | 510                  | 1940                 | 998            | 51.1%           | -                           | 2.6                       | 18.4                            | 6.3   | 7.7                                    | 8.3                           |
| J3:2/2                   | Fairmeadow to<br>Old Bridge Ahead            | U            | C3:B          | 1             | 53                    | 549                  | 1940                 | 998            | 55.0%           | -                           | 3.0                       | 19.6                            | 6.8   | 10.9                                   | 11.5                          |
| J3:3/1                   | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 53                    | 521                  | 1940                 | 998            | 52.2%           | -                           | 2.8                       | 19.0                            | 6.4   | 10.0                                   | 10.5                          |

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|---------------------|---------------------------------------|---|--------|---|----|------|-----------|---------|-------------------|---|------|-------|------|------|---------|
| J3:3/2              | Fairmeadow to<br>Bishops Way<br>Ahead | U | C3:C   | 1 | 53 | 472  | 1940      | 998     | 47.3%             | - | 2.3  | 17.8  | 5.8  | 6.7  | 7.2     |
| J3:4/1              | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 54 | 390  | 1940      | 1016    | 37.0%             | - | 4.0  | 38.1  | 10.6 | 11.0 | 11.3    |
| J3:4/2              | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 54 | 432  | 1940      | 1016    | 41.0%             | - | 4.9  | 42.0  | 11.7 | 12.1 | 12.5    |
| J4:1/2+J4:1/1       | Fairmeadow A/H<br>Ahead Left          | U | C4:D - | 1 | 86 | 988  | 1940:1940 | 1599+0  | 61.7 :<br>0.0%    | - | 1.1  | 4.0   | 2.3  | 3.4  | 4.2     |
| J4:1/3              | Fairmeadow A/H<br>Ahead               | U | C4:D   | 1 | 86 | 933  | 1940      | 1607    | 58.0%             | - | 1.0  | 3.7   | 2.1  | 3.0  | 3.6     |
| J4:2/1              | Fairmeadow R/T<br>Right               | U | C4:C   | 1 | 34 | 523  | 1848      | 616     | 84.9%             | - | 5.0  | 34.4  | 4.2  | 4.7  | 7.4     |
| J4:2/2              | Fairmeadow R/T<br>Right Right2        | U | C4:C   | 1 | 34 | 555  | 1898      | 633     | 87.7%             | - | 5.7  | 36.8  | 4.2  | 4.2  | 7.5     |
| J4:3/1              | High St Ahead<br>Ahead2               | U | C4:A   | 1 | 8  | 104  | 1940      | 166     | 62.5%             | - | 2.2  | 74.6  | 2.7  | 2.9  | 3.7     |
| J4:4/1              | Bishops Way Left                      | U | C4:B   | 1 | 44 | 765  | 1805      | 774     | 98.9%             | - | 18.2 | 85.5  | 12.3 | 22.1 | 34.0    |
| <b>₩</b> 4/2+J4:4/3 | Bishops Way Left<br>Left2 Ahead       | U | C4:B   | 1 | 44 | 1112 | 1880:1940 | 655+416 | 103.8 :<br>103.8% | - | 40.2 | 130.2 | 12.7 | 29.1 | 58.7    |
| J5:1/1              | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 88 | 516  | 1940      | 1644    | 31.4%             | - | 0.5  | 3.3   | 2.0  | 3.0  | 3.2     |
| J5:1/2              | Fairmeadow<br>Ahead Ahead2            | U | C5:A   | 1 | 88 | 962  | 1940      | 1644    | 58.5%             | - | 1.3  | 5.1   | 3.7  | 8.3  | 9.0     |
| J5:1/3              | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 88 | 535  | 1940      | 1644    | 32.5%             | - | 0.5  | 3.3   | 2.1  | 3.3  | 3.5     |
| J5:2/1              | Medway St Left<br>Left2               | U | C5:B   | 1 | 7  | 39   | 1940      | 148     | 26.4%             | - | 0.7  | 62.2  | 1.0  | 1.1  | 1.2     |
| J6:1/1+J6:1/2       | St Peters Bridge<br>ahead Left        | U | C6:B   | 1 | 60 | 969  | 1940:1940 | 672+676 | 71.9 :<br>71.9%   | • | 2.2  | 8.3   | 1.8  | 9.8  | 11.1    |
| J6:2/1              | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 35 | 390  | 1940      | 665     | 56.5%             |   | 0.6  | 6.2   | 0.0  | 0.0  | 0.6     |
| J6:2/2              | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 35 | 432  | 1940      | 665     | 62.6%             | - | 0.8  | 7.2   | 0.0  | 0.0  | 0.8     |

| Basic Results Summary<br>Gyratory-proposed.lsg3x |    |  |       |  |        |                     | Created 03/04/2019<br>Page 26 |
|--|----|--|-------|--|--------|---------------------|-------------------------------|
|  | C1 | PRC for Signalled Lanes (%):           | 17.4  | Total Delay for Signalled Lanes (pcuHr): | 14.08  | Cycle Time (s): 105 |                               |
|  | C2 | PRC for Signalled Lanes (%):           | 9.7   | Total Delay for Signalled Lanes (pcuHr): | 2.79   | Cycle Time (s): 105 |                               |
|  | C3 | Stream: 1 PRC for Signalled Lanes (%): | 38.6  | Total Delay for Signalled Lanes (pcuHr): | 24.76  | Cycle Time (s): 105 |                               |
|  | C4 | PRC for Signalled Lanes (%):           | -15.3 | Total Delay for Signalled Lanes (pcuHr): | 73.29  | Cycle Time (s): 105 |                               |
|  | C5 | PRC for Signalled Lanes (%):           | 53.8  | Total Delay for Signalled Lanes (pcuHr): | 2.98   | Cycle Time (s): 105 |                               |
|  | C6 | PRC for Signalled Lanes (%):           | 25.2  | Total Delay for Signalled Lanes (pcuHr): | 3.71   | Cycle Time (s): 105 |                               |
|  |    | PRC Over All Lanes (%):                | -15.3 | Total Delay Over All Lanes(pcuHr):       | 122.67 |                     |                               |

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Basic Results Summary
Gyratory-proposed.lsg3x
Scenario 12: '2031 PM Peak' (FG12: '2031 PM Peak', Plan 1: 'Network Control Plan 1-Proposed')

**Traffic Flows, Actual** 

|        |      |      |    | Desti | nation |      |     |      |
|--------|------|------|----|-------|--------|------|-----|------|
|        |      | Α    | В  | С     | D      | Е    | F   | Tot. |
|        | Α    | 0    | 31 | 28    | 1247   | 634  | 168 | 2108 |
|        | В    | 0    | 0  | 4     | 26     | 22   | 11  | 63   |
| Origin | С    | 8    | 0  | 0     | 0      | 63   | 4   | 75   |
| Origin | D    | 1090 | 0  | 18    | 0      | 746  | 191 | 2045 |
|        | Е    | 666  | 0  | 72    | 744    | 0    | 59  | 1541 |
|        | F    | 229  | 0  | 3     | 138    | 32   | 0   | 402  |
|        | Tot. | 1993 | 31 | 125   | 2155   | 1497 | 433 | 6234 |

**Network Layout Diagram** J5: 11-0448
PRC: 442 %
PRC: 412 Traffic Delay: 3.7 pouh 0.8 0.0% 0.0 — 1 Arm.15:3 Arm J52 - Medway St J6: Fairmeadow/St Peters Bridge PRC: 24.9 % Total Traffic Delay: 7.0 pcuHr Controller: 0 Arm J3:1 - St Pelers Brid Arm J4.1 - Feirmeedow A/H

-6.4 71.0% 29.8

-7.2 74.0% 31.0

-6.0% 0.0 Arm 14:6. Arm 14:3 - High St 41.2% 2.0 mJ1:2-Bro Results For Scenario: 2031 PM Peak
Cycle Time: 96 PRC: -15.09/Fot Delay (pcul-hi): 117.18 Dmd. In Flow/Cyc Max Unif. Q → Deg. Sat. Modelled Cruise Time

| IACTMOLK IVE  |  |              |               |               |                       |                      |                      |                   |                 |                             |                           |                                 |   |  |                               |
|---------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|-----------------------------|---------------------------|---------------------------------|---|--|-------------------------------|
| Item          | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg Sat<br>(%)  | Turners In<br>Gaps<br>(pcu) | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of<br>Uniform Q At<br>End of<br>Red(pcu) | Max. Back of<br>Uniform<br>Queue (pcu) | Mean<br>Max<br>Queue<br>(pcu) |
| J1:1/1        | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 27                    | 382                  | 1805                 | 526               | 71.3%           | -                           | 3.1                       | 29.7                            | 5.1   | 7.1                                    | 8.3                           |
| J1:1/2        | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 27                    | 18                   | 1805                 | 526               | 3.3%            | -                           | 0.1                       | 28.2                            | 0.4   | 0.4                                    | 0.5                           |
| J1:2/2+J1:2/1 | Broadway Left                                | U            | C1:B          | 1             | 59                    | 725                  | 1870:1870            | 1080+96           | 61.6 :<br>61.6% | -                           | 3.0                       | 14.7                            | 6.5   | 11.3                                   | 12.1                          |
| J1:2/3+J1:2/4 | Broadway Left                                | U            | C1:B          | 1             | 59                    | 816                  | 1870:1870            | 679+666           | 60.7 :<br>60.7% | -                           | 2.7                       | 12.1                            | 3.9   | 5.9                                    | 6.7                           |
| J1:3/2        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 674                  | 1800                 | 1800              | 37.4%           | -                           | 0.3                       | 1.6                             | -   | 0.1                                    | 0.4                           |
| J1:3/3        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 430                  | 1800                 | 1800              | 23.9%           | -                           | 0.2                       | 1.4                             | -   | 0.2                                    | 0.3                           |
| J1:3/4        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 404                  | 1800                 | 1800              | 22.4%           | -                           | 0.2                       | 1.4                             | -   | 0.2                                    | 0.3                           |
| 5/2+J1:5/1    | St Peters St<br>Ahead Left                   | O            | -             | -             | -                     | 402                  | 1940:1940            | 585+777           | 29.6 :<br>29.5% | 804                         | 0.3                       | 2.9                             | -   | 1.3                                    | 1.6                           |
| J2:1/1        | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 75                    | 1167                 | 1940                 | 1536              | 76.0%           | -                           | 1.6                       | 5.1                             | 0.4   | 0.4                                    | 2.0                           |
| J2:1/2        | Broadway Ahead                               | U            | C2:A          | 1             | 75                    | 330                  | 1940                 | 1536              | 21.5%           | -                           | 0.4                       | 4.4                             | 1.9   | 1.9                                    | 2.1                           |
| J2:2/1        | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                           | -                         | -                               | -   | -                                      | -                             |
| J3:1/1        | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 33                    | 500                  | 1848                 | 654               | 76.3%           | -                           | 4.5                       | 32.3                            | 8.3   | 11.8                                   | 13.4                          |
| J3:1/2        | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 33                    | 507                  | 1848                 | 654               | 77.5%           | -                           | 4.5                       | 32.1                            | 8.1   | 12.0                                   | 13.7                          |
| J3:2/1        | Fairmeadow to Old Bridge Ahead               | U            | C3:B          | 1             | 52                    | 399                  | 1940                 | 1071              | 37.3%           | -                           | 1.4                       | 12.6                            | 3.3   | 5.1                                    | 5.4                           |
| J3:2/2        | Fairmeadow to<br>Old Bridge Ahead            | U            | C3:B          | 1             | 52                    | 436                  | 1940                 | 1071              | 40.7%           | -                           | 1.7                       | 13.9                            | 3.6   | 6.8                                    | 7.2                           |
| J3:3/1        | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 52                    | 661                  | 1940                 | 1071              | 61.7%           | -                           | 3.2                       | 17.2                            | 5.3   | 12.0                                   | 12.8                          |

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|--------------------------|---------------------------------------|---|--------|---|----|------|-----------|---------|-------------------|---|------|-------|------|------|---------|
| J3:3/2                   | Fairmeadow to<br>Bishops Way<br>Ahead | U | C3:C   | 1 | 52 | 644  | 1940      | 1071    | 60.1%             | - | 2.9  | 16.2  | 5.2  | 11.6 | 12.3    |
| J3:4/1                   | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 53 | 525  | 1940      | 1091    | 46.5%             | - | 4.8  | 34.3  | 11.6 | 12.0 | 12.5    |
| J3:4/2                   | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 53 | 565  | 1940      | 1091    | 50.0%             | - | 5.2  | 34.4  | 11.9 | 12.4 | 12.9    |
| J4:1/2+J4:1/1            | Fairmeadow A/H<br>Ahead Left          | U | C4:D - | 1 | 77 | 1161 | 1940:1940 | 1568+0  | 74.0 :<br>0.0%    | - | 2.3  | 7.3   | 4.5  | 7.2  | 8.6     |
| J4:1/3                   | Fairmeadow A/H<br>Ahead               | U | C4:D   | 1 | 77 | 1119 | 1940      | 1576    | 71.0%             | - | 2.0  | 6.5   | 4.2  | 6.4  | 7.6     |
| J4:2/1                   | Fairmeadow R/T<br>Right               | U | C4:C   | 1 | 24 | 421  | 1848      | 481     | 87.5%             | - | 5.7  | 49.0  | 4.5  | 5.1  | 8.2     |
| J4:2/2                   | Fairmeadow R/T<br>Right Right2        | U | C4:C   | 1 | 24 | 446  | 1902      | 495     | 90.0%             | - | 6.5  | 52.5  | 4.4  | 5.0  | 8.9     |
| J4:3/1                   | High St Ahead<br>Ahead2               | U | C4:A   | 1 | 8  | 75   | 1940      | 182     | 41.2%             | - | 1.2  | 57.8  | 1.8  | 1.9  | 2.2     |
| <del>O</del><br>O J4:4/1 | Bishops Way Left                      | C | C4:B   | 1 | 45 | 746  | 1805      | 865     | 86.3%             | - | 7.6  | 36.6  | 9.9  | 17.6 | 20.6    |
| J4:4/2+J4:4/3            | Bishops Way Left<br>Left2 Ahead       | U | C4:B   | 1 | 45 | 1299 | 1899:1940 | 709+546 | 103.5 :<br>103.5% | - | 40.9 | 113.3 | 10.4 | 27.6 | 59.5    |
| J5:1/1                   | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 79 | 649  | 1940      | 1617    | 40.1%             | - | 0.7  | 3.9   | 2.5  | 4.3  | 4.7     |
| J5:1/2                   | Fairmeadow<br>Ahead Ahead2            | U | C5:A   | 1 | 79 | 1009 | 1940      | 1617    | 62.4%             | - | 1.6  | 5.7   | 3.9  | 9.2  | 10.1    |
| J5:1/3                   | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 79 | 419  | 1940      | 1617    | 25.9%             | - | 0.4  | 3.2   | 1.6  | 2.3  | 2.5     |
| J5:2/1                   | Medway St Left<br>Left2               | U | C5:B   | 1 | 7  | 63   | 1940      | 162     | 39.0%             | - | 1.0  | 59.8  | 1.5  | 1.6  | 1.9     |
| J6:1/1+J6:1/2            | St Peters Bridge ahead Left           | U | C6:B   | 1 | 49 | 903  | 1940:1940 | 626+627 | 72.1 :<br>72.1%   | - | 3.3  | 13.0  | 2.8  | 6.0  | 7.3     |
| J6:2/1                   | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 37 | 525  | 1940      | 768     | 66.1%             | - | 1.6  | 11.5  | 1.5  | 1.5  | 2.5     |
| J6:2/2                   | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 37 | 565  | 1940      | 768     | 71.1%             | - | 2.2  | 14.2  | 2.2  | 2.2  | 3.4     |

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| atory-proposed.isgsx |    |  |       |  |        |                    | <u></u> |
|----------------------|----|--|-------|--|--------|--------------------|---------|
| (                    | C1 | PRC for Signalled Lanes (%):           | 26.1  | Total Delay for Signalled Lanes (pcuHr): | 8.93   | Cycle Time (s): 96 |         |
| (                    | C2 | PRC for Signalled Lanes (%):           | 18.4  | Total Delay for Signalled Lanes (pcuHr): | 2.05   | Cycle Time (s): 96 |         |
| (                    | C3 | Stream: 1 PRC for Signalled Lanes (%): | 16.2  | Total Delay for Signalled Lanes (pcuHr): | 28.19  | Cycle Time (s): 96 |         |
| (                    | C4 | PRC for Signalled Lanes (%):           | -15.0 | Total Delay for Signalled Lanes (pcuHr): | 66.29  | Cycle Time (s): 96 |         |
|                      | C5 | PRC for Signalled Lanes (%):           | 44.2  | Total Delay for Signalled Lanes (pcuHr): | 3.72   | Cycle Time (s): 96 |         |
| (                    | C6 | PRC for Signalled Lanes (%):           | 24.9  | Total Delay for Signalled Lanes (pcuHr): | 7.04   | Cycle Time (s): 96 |         |
|                      |    | PRC Over All Lanes (%):                | -15.0 | Total Delay Over All Lanes(pcuHr):       | 117.18 |                    |         |

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Scenario 13: '2031 Saturday Peak' (FG13: '2031 Saturday Peak', Plan 1: 'Network Control Plan 1-Proposed')

**Traffic Flows, Actual** 

|        | Destination |      |    |     |      |      |     |      |  |  |  |  |  |
|--------|-------------|------|----|-----|------|------|-----|------|--|--|--|--|--|
|        |             | Α    | В  | С   | D    | E    | F   | Tot. |  |  |  |  |  |
|        | Α           | 0    | 41 | 43  | 681  | 587  | 252 | 1604 |  |  |  |  |  |
|        | В           | 1    | 0  | 1   | 37   | 27   | 11  | 77   |  |  |  |  |  |
| Origin | С           | 2    | 0  | 0   | 0    | 64   | 0   | 66   |  |  |  |  |  |
| Origin | D           | 886  | 0  | 12  | 0    | 830  | 304 | 2032 |  |  |  |  |  |
|        | Е           | 498  | 0  | 67  | 730  | 0    | 133 | 1428 |  |  |  |  |  |
|        | F           | 347  | 0  | 2   | 271  | 41   | 0   | 661  |  |  |  |  |  |
|        | Tot.        | 1734 | 41 | 125 | 1719 | 1549 | 700 | 5868 |  |  |  |  |  |

**Network Layout Diagram** 1.1 0.0% 0.0 — 1 Arm.15:3 Arm J52 - Medway St J6: Fairmeadow/St Peters Bridge PRC: 37.9 % Total Traffic Delay: 3.7 pouHr Controller: 6 -1.3 10.4% 2.1 Arm J3:1 - St Pelers Brid Arm J4:5. Arm J4:3 - High St mJ1:2-Ba Results For Scenario: 2031 Salurday Peak

Cycle Time: 97 PRC: -17.2%fot Delay (pcul-hi): 133.28 Dmd. In Flow/Cyc Max Unif. Q → Deg. Sat. Modelled Cruise Time

| TTO COTTO I TO | 1  |              |               |               |                       |                      |                      |                   |                 |                             |                           |                                 |   |  |                               |
|----------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|-----------------------------|---------------------------|---------------------------------|---|--|-------------------------------|
| Item           | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg Sat<br>(%)  | Turners In<br>Gaps<br>(pcu) | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of<br>Uniform Q At<br>End of<br>Red(pcu) | Max. Back of<br>Uniform<br>Queue (pcu) | Mean<br>Max<br>Queue<br>(pcu) |
| J1:1/1         | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 38                    | 570                  | 1805                 | 726               | 76.4%           | -                           | 3.5                       | 22.8                            | 6.3   | 8.2                                    | 9.8                           |
| J1:1/2         | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 38                    | 12                   | 1805                 | 726               | 1.6%            | -                           | 0.1                       | 16.7                            | 0.2   | 0.2                                    | 0.3                           |
| J1:2/2+J1:2/1  | Broadway Left                                | U            | C1:B          | 1             | 49                    | 631                  | 1870:1870            | 787+210           | 63.2 :<br>63.2% | -                           | 3.7                       | 20.9                            | 6.8   | 10.9                                   | 11.7                          |
| J1:2/3+J1:2/4  | Broadway Left                                | U            | C1:B          | 1             | 49                    | 797                  | 1870:1870            | 585+544           | 70.6 :<br>70.6% | -                           | 4.5                       | 20.4                            | 5.3   | 10.0                                   | 11.2                          |
| J1:3/2         | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 501                  | 1800                 | 1800              | 27.8%           | -                           | 0.2                       | 1.4                             | -   | 0.1                                    | 0.3                           |
| J1:3/3         | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 425                  | 1800                 | 1800              | 23.6%           | -                           | 0.2                       | 1.4                             | -   | 0.2                                    | 0.3                           |
| )<br>O J1:3/4  | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 384                  | 1800                 | 1800              | 21.3%           | -                           | 0.1                       | 1.4                             | -   | 0.2                                    | 0.3                           |
| J1:5/2+J1:5/1  | St Peters St<br>Ahead Left                   | О            | -             | -             | -                     | 661                  | 1940:1940            | 652+721           | 48.1 :<br>48.1% | 1322                        | 0.9                       | 4.9                             | -   | 3.9                                    | 4.4                           |
| J2:1/1         | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 76                    | 1278                 | 1940                 | 1540              | 82.3%           | -                           | 2.3                       | 6.6                             | 0.3   | 0.3                                    | 2.6                           |
| J2:1/2         | Broadway Ahead                               | U            | C2:A          | 1             | 76                    | 271                  | 1940                 | 1540              | 17.6%           | -                           | 0.4                       | 4.7                             | 1.8   | 1.9                                    | 2.0                           |
| J2:2/1         | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                           | -                         | -                               | -   | -                                      | -                             |
| J3:1/1         | St Peters Bridge gyratory Right              | U            | C3:A          | 1             | 45                    | 559                  | 1848                 | 876               | 63.7%           | -                           | 2.2                       | 14.3                            | 2.8   | 10.4                                   | 11.3                          |
| J3:1/2         | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 45                    | 564                  | 1848                 | 876               | 64.4%           | _                           | 2.3                       | 14.8                            | 3.1   | 10.0                                   | 10.9                          |
| J3:2/1         | Fairmeadow to Old Bridge Ahead               | U            | C3:B          | 1             | 41                    | 420                  | 1940                 | 840               | 50.0%           | -                           | 1.4                       | 12.1                            | 4.0   | 8.8                                    | 9.3                           |
| J3:2/2         | Fairmeadow to Old Bridge Ahead               | U            | C3:B          | 1             | 41                    | 458                  | 1940                 | 840               | 54.5%           | -                           | 2.1                       | 16.5                            | 7.0   | 9.8                                    | 10.4                          |
| J3:3/1         | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 41                    | 402                  | 1940                 | 840               | 47.9%           | -                           | 1.7                       | 15.4                            | 6.4   | 8.3                                    | 8.8                           |

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|------------------------|---------------------------------------|---|--------|---|----|------|-----------|---------|-------------------|---|------|-------|------|------|---------|
| J3:3/2                 | Fairmeadow to<br>Bishops Way<br>Ahead | U | C3:C   | 1 | 41 | 360  | 1940      | 840     | 42.9%             | - | 1.1  | 11.2  | 3.5  | 7.1  | 7.5     |
| J3:4/1                 | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 42 | 420  | 1940      | 860     | 46.3%             | - | 3.8  | 34.4  | 9.6  | 10.7 | 11.2    |
| J3:4/2                 | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 42 | 466  | 1940      | 860     | 51.4%             | - | 4.7  | 38.6  | 10.7 | 11.9 | 12.4    |
| J4:1/2+J4:1/1          | Fairmeadow A/H<br>Ahead Left          | U | C4:D - | 1 | 78 | 961  | 1940:1940 | 1571+0  | 61.1 :<br>0.0%    | - | 1.0  | 3.6   | 1.4  | 3.0  | 3.8     |
| J4:1/3                 | Fairmeadow A/H<br>Ahead               | U | C4:D   | 1 | 78 | 883  | 1940      | 1580    | 55.9%             | - | 0.8  | 3.2   | 1.2  | 1.3  | 2.0     |
| J4:2/1                 | Fairmeadow R/T<br>Right               | U | C4:C   | 1 | 27 | 448  | 1848      | 533     | 84.0%             | - | 3.9  | 31.3  | 2.4  | 6.3  | 8.7     |
| J4:2/2                 | Fairmeadow R/T<br>Right Right2        | U | C4:C   | 1 | 27 | 471  | 1887      | 545     | 86.5%             | - | 4.3  | 32.6  | 2.1  | 2.7  | 5.6     |
| J4:3/1                 | High St Ahead<br>Ahead2               | U | C4:A   | 1 | 8  | 66   | 1940      | 180     | 36.7%             | - | 1.0  | 57.0  | 1.6  | 1.7  | 2.0     |
| J4:4/1                 | Bishops Way Left                      | U | C4:B   | 1 | 43 | 830  | 1805      | 819     | 101.4%            | - | 24.2 | 105.1 | 12.4 | 22.7 | 40.2    |
| →<br>Φ34/2+J4:4/3<br>→ | Bishops Way Left<br>Left2 Ahead       | U | C4:B   | 1 | 43 | 1202 | 1879:1940 | 698+442 | 105.5 :<br>105.5% | - | 50.3 | 150.6 | 12.8 | 30.2 | 69.3    |
| J5:1/1                 | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 51 | 385  | 1940      | 1040    | 37.0%             | - | 1.7  | 15.8  | 4.6  | 6.0  | 6.3     |
| J5:1/2                 | Fairmeadow<br>Ahead Ahead2            | U | C5:A   | 1 | 51 | 741  | 1940      | 1040    | 71.3%             | - | 4.7  | 22.9  | 8.9  | 14.8 | 16.0    |
| J5:1/3                 | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 51 | 437  | 1940      | 1040    | 42.0%             | - | 2.0  | 16.5  | 5.2  | 7.0  | 7.4     |
| J5:2/1                 | Medway St Left<br>Left2               | U | C5:B   | 1 | 36 | 77   | 1940      | 740     | 10.4%             | - | 0.5  | 22.1  | 1.2  | 1.3  | 1.4     |
| J6:1/1+J6:1/2          | St Peters Bridge ahead Left           | U | C6:B   | 1 | 52 | 848  | 1940:1940 | 648+651 | 65.3 :<br>65.3%   | - | 2.3  | 9.6   | 2.3  | 6.1  | 7.0     |
| J6:2/1                 | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 35 | 420  | 1940      | 720     | 55.3%             | - | 0.6  | 5.6   | 0.0  | 0.0  | 0.6     |
| J6:2/2                 | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 35 | 466  | 1940      | 720     | 61.3%             | - | 0.8  | 6.4   | 0.0  | 0.0  | 0.8     |

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|-----------------------|----|--|-------|--|--------|--------------------|----|
|                       | C1 | PRC for Signalled Lanes (%):           | 17.9  | Total Delay for Signalled Lanes (pcuHr): | 11.74  | Cycle Time (s): 97 |    |
|                       | C2 | PRC for Signalled Lanes (%):           | 9.4   | Total Delay for Signalled Lanes (pcuHr): | 2.69   | Cycle Time (s): 97 |    |
|                       | C3 | Stream: 1 PRC for Signalled Lanes (%): | 39.8  | Total Delay for Signalled Lanes (pcuHr): | 19.43  | Cycle Time (s): 97 |    |
|                       | C4 | PRC for Signalled Lanes (%):           | -17.2 | Total Delay for Signalled Lanes (pcuHr): | 85.49  | Cycle Time (s): 97 |    |
|                       | C5 | PRC for Signalled Lanes (%):           | 26.3  | Total Delay for Signalled Lanes (pcuHr): | 8.86   | Cycle Time (s): 97 |    |
|                       | C6 | PRC for Signalled Lanes (%):           | 37.9  | Total Delay for Signalled Lanes (pcuHr): | 3.66   | Cycle Time (s): 97 |    |
|                       |    | PRC Over All Lanes (%):                | -17.2 | Total Delay Over All Lanes(pcuHr):       | 133.28 |                    |    |

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Scenario 14: '2031 Sunday Peak' (FG14: '2031 Sunday Peak', Plan 1: 'Network Control Plan 1-Proposed')

**Traffic Flows, Actual** 

|        | Destination |      |    |    |      |      |     |      |  |  |  |  |  |
|--------|-------------|------|----|----|------|------|-----|------|--|--|--|--|--|
|        |             | Α    | В  | С  | D    | E    | F   | Tot. |  |  |  |  |  |
|        | Α           | 0    | 32 | 24 | 704  | 679  | 232 | 1671 |  |  |  |  |  |
|        | В           | 0    | 0  | 0  | 27   | 13   | 9   | 49   |  |  |  |  |  |
| Origin | С           | 4    | 0  | 0  | 0    | 36   | 8   | 48   |  |  |  |  |  |
| Origin | D           | 669  | 0  | 10 | 0    | 734  | 307 | 1720 |  |  |  |  |  |
|        | Е           | 688  | 0  | 44 | 573  | 0    | 164 | 1469 |  |  |  |  |  |
|        | F           | 127  | 0  | 1  | 442  | 48   | 0   | 618  |  |  |  |  |  |
|        | Tot.        | 1488 | 32 | 79 | 1746 | 1510 | 720 | 5575 |  |  |  |  |  |

**Network Layout Diagram** J5: 11-0448 PRC: 92.5 % Total Traffic Delay: 2.5 pouH 0.9 0.0% 0.0 — 1 Arm.15:3 Arm J52 - Medway St J6: Fairmeadow/St Peters Bridge PRC: 48.2 % Total Traffic Delay: 2.3 pouHr Controller: 6 -1.3 29.5% 1.4 Arm J3:1 - St Pelers Brid Arm J4.1 - Feirmeedow A/H

-1.7 53.5% 25.1

-3.0 60.3% 28.1

-0.0% 0.0 Arm J4:6 Arm J4:3 High St mJ1:2-Bit Results For Scenario: 2031 Sunday Peak

Cycle Time: 105 PRC: -2.1% Tot Delay (pcuHr): 84.07 Dmd. In Flow/Cyc Max Unif. Q → Deg. Sat. Modelled Cruise Time

| Item          | Lane Description                             | Lane<br>Type | Full<br>Phase | Num<br>Greens | Total<br>Green<br>(s) | Demand<br>Flow (pcu) | Sat Flow<br>(pcu/Hr) | Capacity<br>(pcu) | Deg<br>Sat (%)  | Turners In<br>Gaps<br>(pcu) | Total<br>Delay<br>(pcuHr) | Av. Delay<br>Per PCU<br>(s/pcu) | Back of<br>Uniform Q At<br>End of<br>Red(pcu) | Max. Back of<br>Uniform<br>Queue (pcu) | Mean Max<br>Queue<br>(pcu) |
|---------------|--|--------------|---------------|---------------|-----------------------|----------------------|----------------------|-------------------|-----------------|-----------------------------|---------------------------|---------------------------------|---|--|----------------------------|
| J1:1/1        | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 38                    | 560                  | 1805                 | 670               | 83.5%           | -                           | 6.0                       | 38.6                            | 9.2   | 12.7                                   | 15.1                       |
| J1:1/2        | A20 Old Bridge<br>gyratory Right             | U            | C1:A          | 1             | 38                    | 10                   | 1805                 | 670               | 1.5%            | -                           | 0.1                       | 20.7                            | 0.2   | 0.3                                    | 0.3                        |
| J1:2/2+J1:2/1 | Broadway Left                                | U            | C1:B          | 1             | 57                    | 852                  | 1870:1870            | 856+204           | 80.4 :<br>80.4% | -                           | 6.3                       | 26.6                            | 9.7   | 18.7                                   | 20.7                       |
| J1:2/3+J1:2/4 | Broadway Left                                | U            | C1:B          | 1             | 57                    | 617                  | 1870:1870            | 627+549           | 52.5 :<br>52.5% | -                           | 2.7                       | 15.9                            | 4.1   | 5.7                                    | 6.2                        |
| J1:3/2        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 692                  | 1800                 | 1800              | 38.4%           | -                           | 0.3                       | 1.7                             | -   | 0.1                                    | 0.4                        |
| J1:3/3        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 339                  | 1800                 | 1800              | 18.8%           | -                           | 0.1                       | 1.3                             | -   | 0.2                                    | 0.3                        |
| J1:3/4        | Broadway<br>gyratory Right                   | U            | -             | -             | -                     | 288                  | 1800                 | 1800              | 16.0%           | -                           | 0.1                       | 1.3                             | -   | 0.2                                    | 0.3                        |
| S:5/2+J1:5/1  | St Peters St<br>Ahead Left                   | 0            | -             | -             | -                     | 618                  | 1940:1940            | 631+163           | 77.8 :<br>77.8% | 1236                        | 3.1                       | 18.0                            | -   | 10.4                                   | 12.1                       |
| J2:1/1        | Broadway Ahead<br>Left                       | U            | C2:A          | 1             | 84                    | 1193                 | 1940                 | 1570              | 76.0%           | -                           | 1.6                       | 4.9                             | 0.3   | 0.4                                    | 2.0                        |
| J2:1/2        | Broadway Ahead                               | U            | C2:A          | 1             | 84                    | 317                  | 1940                 | 1570              | 20.2%           | -                           | 0.3                       | 3.3                             | 1.2   | 1.2                                    | 1.4                        |
| J2:2/1        | Hart St Left                                 | U            | C2:B          | 1             | 7                     | 0                    | 1940                 | -                 | -               | -                           | -                         | -                               | -   | -                                      | -                          |
| J3:1/1        | St Peters Bridge<br>gyratory Right           | U            | C3:A          | 1             | 51                    | 559                  | 1848                 | 915               | 61.1%           | -                           | 3.2                       | 20.8                            | 5.3   | 12.0                                   | 12.8                       |
| J3:1/2        | St Peters Bridge<br>gyratory Right<br>Right2 | U            | C3:A          | 1             | 51                    | 559                  | 1848                 | 915               | 61.1%           | -                           | 3.4                       | 22.0                            | 6.0   | 12.0                                   | 12.8                       |
| J3:2/1        | Fairmeadow to Old Bridge Ahead               | U            | C3:B          | 1             | 43                    | 443                  | 1940                 | 813               | 54.5%           | -                           | 3.2                       | 25.7                            | 6.8   | 7.6                                    | 8.2                        |
| J3:2/2        | Fairmeadow to<br>Old Bridge Ahead            | U            | C3:B          | 1             | 43                    | 490                  | 1940                 | 813               | 60.3%           | -                           | 3.7                       | 27.2                            | 7.5   | 11.0                                   | 11.8                       |
| J3:3/1        | Fairmeadow to<br>Bishops Way<br>Ahead        | U            | C3:C          | 1             | 43                    | 406                  | 1940                 | 813               | 49.9%           | -                           | 2.8                       | 25.1                            | 6.3   | 6.6                                    | 7.1                        |

| Gyratory-prop             | posed.lsg3x                           |   |        |   |    |      |           |         |                 |   |      |      |      |      | Page 40 |
|---------------------------|---------------------------------------|---|--------|---|----|------|-----------|---------|-----------------|---|------|------|------|------|---------|
| J3:3/2                    | Fairmeadow to<br>Bishops Way<br>Ahead | U | C3:C   | 1 | 43 | 349  | 1940      | 813     | 42.9%           | - | 2.3  | 23.3 | 5.1  | 5.8  | 6.2     |
| J3:4/1                    | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 44 | 328  | 1940      | 831     | 39.5%           | - | 3.6  | 39.3 | 9.2  | 9.6  | 9.9     |
| J3:4/2                    | Fairmeadow<br>N/Bound Ahead           | U | C3:D   | 1 | 44 | 341  | 1940      | 831     | 41.0%           | - | 4.1  | 43.4 | 9.6  | 9.9  | 10.3    |
| J4:1/2+J4:1/1             | Fairmeadow A/H<br>Ahead Left          | U | C4:D - | 1 | 86 | 965  | 1940:1940 | 1599+0  | 60.3 :<br>0.0%  | - | 1.0  | 3.6  | 1.8  | 3.0  | 3.8     |
| J4:1/3                    | Fairmeadow A/H<br>Ahead               | U | C4:D   | 1 | 86 | 860  | 1940      | 1607    | 53.5%           | - | 0.7  | 3.1  | 1.5  | 1.7  | 2.2     |
| J4:2/1                    | Fairmeadow R/T<br>Right               | U | C4:C   | 1 | 30 | 477  | 1848      | 546     | 87.4%           | - | 5.1  | 38.7 | 3.3  | 3.9  | 7.1     |
| J4:2/2                    | Fairmeadow R/T<br>Right Right2        | U | C4:C   | 1 | 30 | 504  | 1895      | 559     | 90.1%           | - | 5.8  | 41.2 | 2.9  | 2.9  | 6.9     |
| J4:3/1                    | High St Ahead<br>Ahead2               | U | C4:A   | 1 | 8  | 48   | 1940      | 166     | 28.9%           | - | 0.8  | 60.2 | 1.3  | 1.3  | 1.5     |
| O J4:4/1                  | Bishops Way Left                      | U | C4:B   | 1 | 48 | 716  | 1805      | 842     | 85.0%           | - | 7.6  | 38.4 | 10.7 | 18.3 | 21.0    |
| <b>O</b><br>J4:4/2+J4:4/3 | Bishops Way Left<br>Left2 Ahead       | U | C4:B   | 1 | 48 | 1004 | 1873:1940 | 721+371 | 91.9 :<br>91.9% | - | 11.3 | 40.7 | 9.9  | 20.0 | 25.1    |
| J5:1/1                    | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 87 | 402  | 1940      | 1626    | 24.7%           | - | 0.4  | 3.2  | 1.7  | 2.3  | 2.5     |
| J5:1/2                    | Fairmeadow<br>Ahead Ahead2            | U | C5:A   | 1 | 87 | 760  | 1940      | 1626    | 46.7%           | - | 0.9  | 4.3  | 3.2  | 5.7  | 6.1     |
| J5:1/3                    | Fairmeadow<br>Ahead                   | U | C5:A   | 1 | 87 | 477  | 1940      | 1626    | 29.3%           | - | 0.4  | 3.4  | 2.0  | 2.9  | 3.1     |
| J5:2/1                    | Medway St Left<br>Left2               | U | C5:B   | 1 | 8  | 49   | 1940      | 166     | 29.5%           | - | 0.8  | 60.4 | 1.3  | 1.3  | 1.5     |
| J6:1/1+J6:1/2             | St Peters Bridge ahead Left           | U | C6:B   | 1 | 59 | 819  | 1940:1940 | 664+666 | 61.6 :<br>61.6% | - | 1.3  | 5.7  | 1.0  | 1.0  | 1.8     |
| J6:2/1                    | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 36 | 328  | 1940      | 684     | 48.0%           | - | 0.5  | 5.0  | 0.0  | 0.0  | 0.5     |
| J6:2/2                    | Fairmeadow N/B<br>Ahead               | U | C6:A   | 1 | 36 | 341  | 1940      | 684     | 49.9%           | - | 0.5  | 5.2  | 0.0  | 0.0  | 0.5     |

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|-------------------------|--|------|--|-------|---------------------|---------|
| C1                      | PRC for Signalled Lanes (%):           | 7.7  | Total Delay for Signalled Lanes (pcuHr): | 15.06 | Cycle Time (s): 105 |         |
| C2                      | PRC for Signalled Lanes (%):           | 18.5 | Total Delay for Signalled Lanes (pcuHr): | 1.91  | Cycle Time (s): 105 |         |
| C3                      | Stream: 1 PRC for Signalled Lanes (%): | 47.3 | Total Delay for Signalled Lanes (pcuHr): | 26.28 | Cycle Time (s): 105 |         |
| C4                      | PRC for Signalled Lanes (%):           | -2.1 | Total Delay for Signalled Lanes (pcuHr): | 32.39 | Cycle Time (s): 105 |         |
| C5                      | PRC for Signalled Lanes (%):           | 92.5 | Total Delay for Signalled Lanes (pcuHr): | 2.55  | Cycle Time (s): 105 |         |
| C6                      | PRC for Signalled Lanes (%):           | 46.2 | Total Delay for Signalled Lanes (pcuHr): | 2.26  | Cycle Time (s): 105 |         |
|                         | PRC Over All Lanes (%):                | -2.1 | Total Delay Over All Lanes(pcuHr):       | 84.07 |                     |         |

| Hame         | Rout        |             |              |              |                                |                                |   |   |
|--------------|-------------|-------------|--------------|--------------|--------------------------------|--------------------------------|---|---|
| Route<br>Num | Org<br>Zone | Org<br>Lane | Dest<br>Zone | Dest<br>Lane | Scenario 7:<br>2019 AM<br>Peak | Scenario 8:<br>2019 PM<br>Peak | Scenario 9:<br>2019<br>Saturday<br>Peak | Scenario<br>10:<br>2019<br>Sunday<br>Peak |
| 52           | Α           | J5:4/1      | В            | J5:3/1       | 91                             | 28                             | 37                                      | 29  |
| 28           | А           | J5:4/1      | С            | J4:6/1       | 33                             | 25                             | 38                                      | 21  |
| 27           | А           | J5:4/1      | D            | J4:5/1       | 445                            | 556                            | 330                                     | 334                                       |
| 43           | Α           | J5:4/2      | D            | J4:5/2       | 417                            | 567                            | 278                                     | 295                                       |
| 6            | Α           | J5:4/3      | E            | J2:3/2       | 278                            | 228                            | 172                                     | 224                                       |
| 36           | Α           | J5:4/2      | Е            | J2:3/1       | 458                            | 343                            | 352                                     | 382                                       |
| 22           | Α           | J5:4/3      | F            | J1:6/1       | 216                            | 151                            | 225                                     | 207                                       |
| 55           | В           | J5:2/1      | Α            | J3:5/1       | 1                              | 0                              | 0                                       | 0   |
| 56           | В           | J5:2/1      | Α            | J3:5/2       | 1                              | 0                              | 1                                       | 0   |
| 62           | В           | J5:2/1      | С            | J4:6/1       | 2                              | 4                              | 1                                       | 0   |
| 61           | В           | J5:2/1      | D            | J4:5/1       | 2                              | 8                              | 5                                       | 6   |
| 60           | В           | J5:2/1      | D            | J4:5/2       | 12                             | 15                             | 28                                      | 18  |
| 58           | В           | J5:2/1      | Е            | J2:3/2       | 3                              | 6                              | 7                                       | 3   |
| 59           | В           | J5:2/1      | Е            | J2:3/1       | 8                              | 14                             | 17                                      | 9   |
| 57           | В           | J5:2/1      | F            | J1:6/1       | 7                              | 10                             | 10                                      | 8   |
| 25           | С           | J4:3/1      | Α            | J3:5/1       | 0                              | 3                              | 1                                       | 2   |
| 39           | С           | J4:3/1      | Α            | J3:5/2       | 1                              | 4                              | 1                                       | 2   |
| 13           | С           | J4:3/1      | D            | J4:5/1       | 0                              | 0                              | 0                                       | 0   |
| 5            | С           | J4:3/1      | Е            | J2:3/2       | 75                             | 57                             | 57                                      | 32  |
| 3            | С           | J4:3/1      | Е            | J2:3/1       | 0                              | 0                              | 0                                       | 0   |
| 4            | С           | J4:3/1      | F            | J1:6/1       | 19                             | 4                              | 0                                       | 7   |
| 30           | D           | J4:4/2      | Α            | J3:5/1       | 359                            | 482                            | 383                                     | 298                                       |
| 31           | D           | J4:4/2      | Α            | J3:5/2       | 395                            | 500                            | 408                                     | 299                                       |
| 34           | D           | J4:4/2      | С            | J4:6/1       | 18                             | 16                             | 11                                      | 9   |
| 47           | D           | J4:4/2      | Е            | J2:3/2       | 22                             | 0                              | 26                                      | 39  |
| 1            | D           | J4:4/1      | E            | J2:3/1       | 680                            | 672                            | 715                                     | 616                                       |
| 46           | D           | J4:4/2      | F            | J1:6/1       | 248                            | 172                            | 271                                     | 274                                       |
| 26           | E           | J1:2/2      | Α            | J3:5/1       | 319                            | 300                            | 222                                     | 307                                       |
| 42           | Е           | J1:2/2      | Α            | J3:5/2       | 319                            | 300                            | 223                                     | 307                                       |
| 38           | E           | J1:2/3      | С            | J4:6/1       | 82                             | 65                             | 60                                      | 39  |
| 14           | Е           | J1:2/3      | D            | J4:5/1       | 285                            | 305                            | 302                                     | 274                                       |
| 11           | Е           | J1:2/3      | D            | J4:5/2       | 378                            | 365                            | 350                                     | 238                                       |
| 9            | Е           | J1:2/3      | E            | J2:3/1       | 0                              | 0                              | 0                                       | 0   |
| 2            | E           | J1:2/2      | F            | J1:6/1       | 46                             | 53                             | 119                                     | 146                                       |
| 23           | F           | J1:5/2      | Α            | J3:5/1       | 124                            | 103                            | 155                                     | 56  |
| 35           | F           | J1:5/2      | Α            | J3:5/2       | 125                            | 103                            | 155                                     | 57  |
| 17           | F           | J1:5/2      | С            | J4:6/1       | 3                              | 3                              | 2                                       | 1   |
| 12           | F           | J1:5/2      | D            | J4:5/1       | 39                             | 60                             | 122                                     | 183                                       |

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|    | J     - |        | 3 - |        |    |    |     |     |
|----|---------|--------|-----|--------|----|----|-----|-----|
| 10 | F       | J1:5/2 | D   | J4:5/2 | 46 | 64 | 120 | 212 |
| 37 | F       | J1:5/2 | Е   | J2:3/2 | 6  | 10 | 11  | 14  |
| 8  | F       | J1:5/2 | Е   | J2:3/1 | 11 | 19 | 26  | 29  |

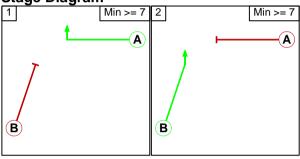
| Gyraioi      | y-prop      | osea.is     | sysx         |              |                                    |                                    |   |   |
|--------------|-------------|-------------|--------------|--------------|------------------------------------|------------------------------------|---|---|
| Route<br>Num | Org<br>Zone | Org<br>Lane | Dest<br>Zone | Dest<br>Lane | Scenario<br>11:<br>2031 AM<br>Peak | Scenario<br>12:<br>2031 PM<br>Peak | Scenario<br>13:<br>2031<br>Saturday<br>Peak | Scenario<br>14:<br>2031<br>Sunday<br>Peak |
| 52           | Α           | J5:4/1      | В            | J5:3/1       | 99                                 | 31                                 | 41  | 32  |
| 28           | Α           | J5:4/1      | С            | J4:6/1       | 36                                 | 28                                 | 43  | 24  |
| 27           | Α           | J5:4/1      | D            | J4:5/1       | 480                                | 621                                | 342   | 378                                       |
| 43           | Α           | J5:4/2      | D            | J4:5/2       | 460                                | 626                                | 339   | 326                                       |
| 6            | A           | J5:4/3      | Е            | J2:3/2       | 300                                | 251                                | 185   | 245                                       |
| 36           | A           | J5:4/2      | Е            | J2:3/1       | 502                                | 383                                | 402   | 434                                       |
| 22           | Α           | J5:4/3      | F            | J1:6/1       | 235                                | 168                                | 252   | 232                                       |
| 55           | В           | J5:2/1      | A            | J3:5/1       | 1                                  | 0                                  | 0   | 0   |
| 56           | В           | J5:2/1      | A            | J3:5/2       | 1                                  | 0                                  | 1   | 0   |
| 62           | В           | J5:2/1      | С            | J4:6/1       | 2                                  | 4                                  | 1   | 0   |
| 61           | В           | J5:2/1      | D            | J4:5/1       | 3                                  | 8                                  | 16  | 4   |
| 60           | В           | J5:2/1      | D            | J4:5/2       | 12                                 | 18                                 | 21  | 23  |
| 58           | В           | J5:2/1      | E            | J2:3/2       | 4                                  | 6                                  | 9   | 4   |
| 59           | В           | J5:2/1      | E            | J2:3/1       | 8                                  | 16                                 | 18  | 9   |
| 57           | В           | J5:2/1      | F            | J1:6/1       | 8                                  | 11                                 | 11  | 9   |
| 25           | C           | J4:3/1      | A            | J3:5/1       | 0                                  | 4                                  | 1   | 2   |
| 39           | C           | J4:3/1      | A            | J3:5/2       | 1                                  | 4                                  | 1   | 2   |
| 13           | C           | J4:3/1      | D            | J4:5/1       | 0                                  | 0                                  | 0   | 0   |
| 5            | C           | J4:3/1      | E            | J2:3/2       | 82                                 | 63                                 | 64  | 36  |
| 3            | C           | J4:3/1      | E            | J2:3/1       | 0                                  | 03                                 | 04  | 0   |
| 4            | C           | J4:3/1      | F            | J1:6/1       | 21                                 |                                    |   | 8   |
| 30           | D           | J4:4/2      | A            | J3:5/1       | 390                                | 525                                | 420   | 328                                       |
|              |             |             |              | J3:5/2       |                                    |                                    |   |   |
| 31           | D           | J4:4/2      |              |              |                                    | 565                                | 466   | 341                                       |
| 34           | D           | J4:4/2      | С            | J4:6/1       | 20                                 | 18                                 | 12  | 10  |
| 47           | D           | J4:4/2      | E            | J2:3/2       | 0                                  | 0                                  | 0   | 18  |
| 1            | D           | J4:4/1      | E            | J2:3/1       | 765                                | 746                                | 830   | 716                                       |
| 46           | D           | J4:4/2      | F            | J1:6/1       | 270                                | 191                                | 304   | 307                                       |
| 26           | E           | J1:2/2      | A            | J3:5/1       | 347                                | 333                                | 249   | 344                                       |
| 42           | E           | J1:2/2      | A            | J3:5/2       | 348                                | 333                                | 249   | 344                                       |
| 38           | E           | J1:2/3      | С            | J4:6/1       | 89                                 | 72                                 | 67  | 44  |
| 14           | E           | J1:2/3      | D            | J4:5/1       | 311                                | 340                                | 346   | 285                                       |
| 11           | E           | J1:2/3      | D            | J4:5/2       | 412                                | 404                                | 384   | 288                                       |
| 9            | Е           | J1:2/3      | Е            | J2:3/1       | 0                                  | 0                                  | 0   | 0   |
| 2            | E           | J1:2/2      | F            | J1:6/1       | 50                                 | 59                                 | 133   | 164                                       |
| 23           | F           | J1:5/2      | Α            | J3:5/1       | 135                                | 114                                | 173   | 63  |
| 35           | F           | J1:5/2      | Α            | J3:5/2       | 136                                | 115                                | 174   | 64  |
| 17           | F           | J1:5/2      | С            | J4:6/1       | 3                                  | 3                                  | 2   | 1   |
| 12           | F           | J1:5/2      | D            | J4:5/1       | 44                                 | 67                                 | 132   | 219                                       |
| 10           | F           | J1:5/2      | D            | J4:5/2       | 49                                 | 71                                 | 139   | 223                                       |

| 37 | F | J1:5/2 | E | J2:3/2 | 6  | 10 | 13 | 14 |
|----|---|--------|---|--------|----|----|----|----|
| 8  | F | J1:5/2 | E | J2:3/1 | 13 | 22 | 28 | 34 |

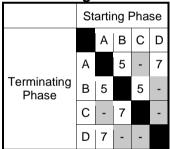
# C1 Phase Intergreens Matrix

|                      | Start | ing P | hase |
|----------------------|-------|-------|------|
|                      |       | Α     | В    |
| Terminating<br>Phase | Α     |       | 5    |
|                      | В     | 5     |      |

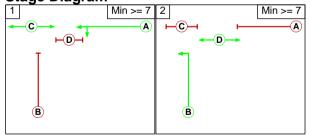
Stage Diagram



C2 Phase Intergreens Matrix



**Stage Diagram** 

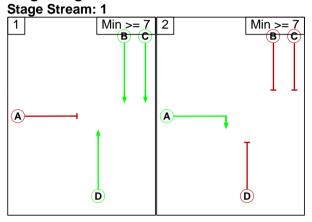


C3

## **Phase Intergreens Matrix**

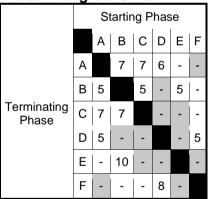
|                      | Starting Phase |   |   |   |   |  |
|----------------------|----------------|---|---|---|---|--|
|                      |                | Α | В | С | D |  |
|                      | Α              |   | 6 | 6 | 5 |  |
| Terminating<br>Phase | В              | 5 |   | - | - |  |
|                      | С              | 5 | - |   | - |  |
|                      | D              | 5 | - | - |   |  |

## Stage Diagram

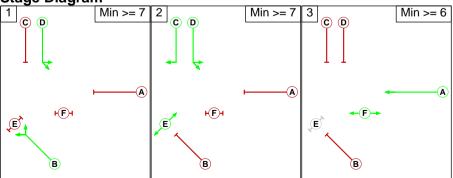


C4

## **Phase Intergreens Matrix**



Stage Diagram

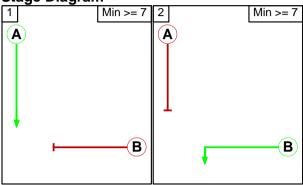


C5

## Phase Intergreens Matrix

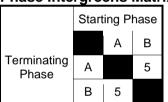
|                      | Start | ing P | hase |
|----------------------|-------|-------|------|
|                      |       | Α     | В    |
| Terminating<br>Phase | Α     |       | 5    |
|                      | В     | 5     |      |

Stage Diagram

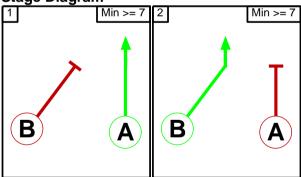


C6

## **Phase Intergreens Matrix**



**Stage Diagram** 



# **Maidstone Joint Transportation Board**





16 October 2019

## **Maidstone Integrated Transport Package (MITP)**

| Decision Making Authority              | Kent County Council/Maidstone Borough Council   |
|--|---|
| Lead Director                          | Simon Jones                                     |
| Lead Head of Service                   | Tim Read  |
| Lead Officer and Report<br>Author      | Russell Boorman/Lee Burchill                    |
| Wards and County Divisions affected    | Maidstone Borough including Tonbridge & Malling |
| 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 Integrated Transport Package (MITP)**

### 1. INTRODUCTION AND BACKGROUND

- 1.1 This report provides an update in respect of the proposed junction improvements contained within the Maidstone Integrated Transport Package (MITP).
- 1.2 Design work is being carried out consecutively on all schemes to mitigate any delays and achieve the SELEP spending requirement of 2021. A programme of delivery has been derived to minimise the impact on the network and ensure network resilience with the uncertainty of BREXIT and other key Strategic schemes being delivered in and around the Borough of Maidstone.

### 2. CONSULTATION:

- 2.1 The Maidstone Integrated Transport Package consultation, to be known as 'Keep Maidstone Moving', contains information on the following junction improvements:
  - A20 Coldharbour Roundabout Aylesford
  - A274 Sutton Road Maidstone junction with Willington Street
  - A20 Ashford Road Maidstone junction with Willington Street
  - A229 Loose Road Maidstone junction with A274 Sutton Road
  - A229 Loose Road Maidstone junction with Armstrong Road
  - A229 Loose Road Maidstone junction with Cripple Street
  - A229 Loose Road Maidstone junction with Sheals Crescent
- 2.2 Due to the complexity of promoting this as 'one' consultation and ensuring that the details contained within are of a nature and standard that provides the consultees with the most relevant and up to date information, the decision has been taken to reschedule the 'go live' date to the **7**<sup>th</sup> **November 2019.**
- 2.3 This will ensure all responses received are meaningful and provide a more robust guidance as to the direction of the proposed designs.
- 2.4 During the consultation phase, there will be three individual engagement sessions where Members, Councillors and members of the public will be invited to talk to the project teams.
- 2.5 Due to the scale of the consultation, these sessions will be both informal and formal within specified timings. One during the day, one during the evening and a session at a weekend. This will give the opportunity for a wide range of consultees to attend at a time that suits them.
- 2.6 Following the closure of the consultation, **20**<sup>th</sup> **December 2019**, the responses will be collated, and a report presented to the Cabinet Member for Planning, Highways, Transport & Waste to give approval to the recommendations contained within. An update report will be brought back to the most relevant Maidstone JTB thereafter. It must be noted that

Members will be engaged following the results of the consultation, so they are aware of the proposed recommendations.

### 3. SCHEME UPDATES:

### 3.1 **A20 Coldharbour Roundabout:**

- 3.2 Detailed design has progressed well, with many of the early challenges being mitigated. The required acquisition of third-party land has been derisked with extremely positive negotiations being held with the landowner and Heads of Terms drafted awaiting approval.
- 3.3 The design is due to complete in October 2019 which will allow the contractual documents to be prepared and completed by the end of the year. KCC procurement have been engaged and a programme for the procurement phase identified to commence early 2020 with an award of contract in March/April 2020.
- 3.4 Construction is due to start in April 2020, which is after the planned SMART motorway completion and is expected to complete within 6-8 months. A large quantity of the construction can be undertaken off-line and therefore the need for traffic management on the highway is reduced.

### 4 A229 Loose Road Corridor:

- 4.1 The loose road corridor comprises of four separate junctions but has been combined as one commission to ensure a timely completion. The junctions are as follows:
  - A229 Loose Road junction with the A274 Sutton Road (Wheatsheaf junction)
  - A229 Loose Road junction with Armstrong Road/Park Way
  - A229 Loose Road junction with Sheals Crescent
  - A229 Loose Road junction with Cripple Street/Boughton Lane
- 4.2 Despite significant challenges in relation to the designs for the above, great progress has now been made and the detailed design continues at pace.
- 4.3 All investigatory work has been completed, including geotechnical, environmental, topographical etc which have all fed into the design process.
- 4.4 The detailed design for all schemes named above will be completed in November 2019, with the procurement commencing in early 2020.
- 4.5 Construction is likely to start in the summer of 2020 as this provides reduced traffic volumes and gives a longer period for mobilisation and engagement with the local community providing information about traffic management phasing.

### **5** A20 Ashford Road junction with Willington Street:

- 5.1 This scheme requires the re-positioning of a listed rag stone wall which needs a planning application to be submitted to the planning authority. Whilst there is support for this scheme, this has been recorded as a risk on the project risk register.
- 5.2 The detailed design is continuing and will be completed in early 2020. This will allow the planning application to be submitted and the procurement phase commence in the summer of 2020.
- 5.3 Due to other projects being carried out on the network in the near vicinity, this scheme has been placed to the back of the construction programme and is likely to commence in early 2021.

### **6** Other Schemes:

6.1 The following schemes are not contained within the MITP but are being delivered within the Borough of Maidstone.

## **6.1.1 A249 Bearsted Road Major Infrastructure Project:**

- 6.1.2 This scheme is now in the procurement phase with the tender being issued in October 2019 and a Contract Award in December 2019. The construction phase will commence in early 2020 with the new access to Newnham Court being constructed and operational prior to any works on the highway network.
- 6.1.3 It is anticipated the construction phase will take 12 months (including the off-line works). A communication strategy has been jointly agreed with MBC/KCC and will start in earnest shortly, this will provide updates on phasing, timings etc.

## 6.2 **A26 Tonbridge Road junction with Fountain Lane:**

- 6.2.1 Following a recommendation by KCC at the latest Maidstone Joint Transportation Board to remove this scheme from the MITP due to the lack of achievable capacity benefits, direction has been given to seek alternative solutions that demonstrate good value for money and provide capacity benefits.
- 6.2.2 A solution has been identified which requires the acquisition of adjacent third-party land, as such, negotiations have commenced with the relevant landowner and it is hoped that voluntary acquisition can be achieved.
- 6.2.3 The concept design is progressing and will be completed in December 2019. This will allow the outline design to commence in early 2020. Currently there is insufficient S106 contributions to deliver this scheme, currently estimated at £3.0/£3.5m, however, KCC are continuing to work with MBC and TMBC to seek other funding opportunities to be able to deliver this scheme in conjunction with the MITP projects.
- 6.2.4 Due to the Local Growth Fund spending constraints (funding to be spent by the end of March 2021), this scheme is not suitable to utilise any potential

underspend from the MITP, as the deliverability is unlikely to be completed within this timeframe, especially if CPO powers are required.

## 6.3 **A274 Sutton Road junction with Willington Street:**

- 6.3.1 A proposal for this junction has been designed to try and retain as many of the existing cherry trees/vegetation as is practicable. However, there are concerns that this will not provide the required capacity benefits.
- 6.3.2 The detailed design will complete in December 2019, it will then be decided as to whether this scheme progresses to the next phase of procurement.

### **7 MITIGATION:**

- 7.1 The above schemes still represent an underspend in the Maidstone Integrated Transport Package; Kent County Council has therefore 'over programmed' the package of improvements to ensure that the LGF is not lost and remains being spent in the County.
- 7.2 As there is still not a suitable scheme within the Borough of Maidstone, that can demonstrate good value for money and return capacity benefits required. It must also be noted that due to the SELEP delivery timeframe of 2021, LGF would need to be spent within this period.
- 7.3 Designs would need to be completed, a business case submitted and given endorsement by the SELEP Independent Technical Evaluator, all within the identified timescales identified in 7.2.
- 7.4 Therefore, the proposed scheme for the A20 London Road Aylesford, continues to be developed accordingly. This demonstrates good value for money, achieves the capacity benefits required, design work is almost complete and has an endorsed Business Case.

### 8 CONCLUSION:

- 8.1 The **'Keep Maidstone Moving'** consultation document will be released in November 2019 and results/recommendations shared with this board accordingly.
- 8.2 The MITP will continue to be 'over programmed' and <u>ALL</u> the original identified junction improvements continue to be developed with a view to delivering each scheme and more.

# Agenda Item 20

**To:** Maidstone Joint Transportation Board

By: KCC Highways, Transportation & Waste

**Date:** 16<sup>th</sup> October 2019

**Subject**: Highway Forward Works Programme – 2019/20 onwards

Classification: Information Only

Summary: This report updates Members on the identified schemes approved for construction

### 1. Introduction

This report provides an update and summarises schemes that have been programmed for delivery in 2019/20.

Kent County Council has agreed a substantial increase in the budget for planned highway works over the next three years, and as a result we are still in the process of identifying and designing schemes for inclusion in our full Year One to Two (2019/20 and 2020/21) and Year Three to Five (2021/22 to 2023/24) programmes. Because of this, we have decided to publish an interim programme, and to publish the full programmes later this year. For some assets this interim programme covers approximately the first six months of 2019/20, whilst for others it includes most of the works planned for the whole year.

This programme is subject to regular review and may change for several reasons including budget allocation, contract rate changes, and to reflect KCC's changing priorities. The programme and extent of individual sites within the programme may also be revised following engineering assessment during the design phase.

Road, Footway & Cycleway Renewal and Preservation Schemes – see Appendix A

**Drainage Repairs & Improvements** – see Appendix B

Street Lighting – see Appendix C

Transportation and Safety Schemes – see Appendix D

- Casualty Reduction Measures
- Externally funded schemes
- Local Growth Fund

**Developer Funded Works** – see Appendix E

**Bridge Works –** see Appendix F

**Traffic Systems** – see Appendix G

Combined Member Fund – see Appendix H

Conclusion

1. This report is for Members' information.

### **Contact Officers:**

The following contact officers can be contacted on 03000 418181

Kirstie Williams Highway Manager Mid Kent Susan Laporte Maidstone District Manager Alan Casson Strategic Asset Manager

Earl Bourner Drainage & Structures Asset Manager

Sue Kinsella Street Light Asset Manager

Toby Butler Traffic & Network Solutions Asset Manager

Jamie HareDevelopment Agreements ManagerJamie WatsonSchemes Programme Manager

## **Appendix A – Footway and Carriageway Improvement Schemes**

The delivery of these schemes is weather dependent; should it prove not possible to carry out these works on the planned dates, new dates will be arranged, and the residents will be informed by a letter drop to their homes.

| Machine Resurfacing – Contact Officer Mr Byron Lovell |                       |  |   |  |
|---|-----------------------|--|---|--|
| Road Name   | Parish                | Extent of Works  | Current Status                                  |  |
| A274 Maidstone Road                                   | Langley               | From the B2163 Upper Street to Warmlake Road   | Programmed 21st<br>November 2019                |  |
| A20 King Street                                       | Maidstone             | Watt Tyler Way and Wyke<br>Manor Road  | Programmed 2 <sup>nd</sup><br>December 2019     |  |
| A229 Linton Road                                      | Loose                 | From Lancet Lane to<br>Rosemount Close   | Programmed<br>30 <sup>th</sup> November<br>2019 |  |
| Forstal Road  | Aylesford             | From bridge deck over<br>motorway to Beddow Way  | Programmed 8 <sup>th</sup><br>November 2019     |  |
| A229 Sheals Crescent                                  | Maidstone             | From Loose Road (through<br>Hayle Road, College Road,<br>Mill Street) to Bishops Way           | Programmed<br>14 <sup>th</sup> November<br>2019 |  |
| A229 Palace Avenue                                    | Maidstone             | Mill Street and A249 Mote<br>Road  | Programmed<br>27 <sup>th</sup> November<br>2019 |  |
| A229 Upper Stone Street                               | Maidstone             | A249 Mote Road to Old Tovil<br>Road  | Programmed<br>11 <sup>th</sup> December<br>2019 |  |
| A20/A26 Rocky Hill                                    | Maidstone             | Maidstone Gyratory to<br>Terrace Road  | To be<br>programmed<br>2020                     |  |
| Footway Improvement - Coi                             | ntact Officer Mr Neil | Tree   |   |  |
| Road Name   | Parish                | Extent and Description of Works  | Current Status                                  |  |
| Mote Road   | Maidstone             | From the junction with Square Hill Road to Willow Way (Northern side) (Footway Reconstruction) | Completed                                       |  |
| Winifred Road   | Bearsted              | Entire length (Footway Reconstruction).  | Completed                                       |  |

| Royston Road  | Bearsted  | Entire length (Footway Reconstruction). | Completed                      |  |
|---|-----------|---|--------------------------------|--|
| Rosemary Road   | Bearsted  | Entire length (Footway Reconstruction). | Completed                      |  |
| Trenton Close   | Allington | Entire length (Footway Reconstruction). | Designed and to be programmed. |  |
| Beverley Road   | Barming   | Entire length<br>(Footway Protection)   | Completed                      |  |
| Egremont Road   | Bearsted  | Entire length<br>(Footway Protection)   | Completed                      |  |
| Roseholme   | Maidstone | Entire length<br>(Footway Protection)   | Completed                      |  |
| Wesley Close  | Barming   | Entire length<br>(Footway Protection)   | Completed                      |  |
| Broomshaw Road  | Barming   | Entire length<br>(Footway Protection)   | Completed                      |  |
| Surface Treatments – Contact Officer Mr Jonathan Dean |           |   |                                |  |

## Micro Surfacing

|                | 1                      |  |                |
|----------------|------------------------|--|----------------|
| Road Name      | Parish                 | Extent and Description of Works                            | Current Status |
| Glebe Lane     | Maidstone<br>(Barming) | Tonbridge Road to Farleigh Lane                            | Completed      |
| Gatland Lane   | Maidstone<br>(Barming) | Farleigh Lane to Fant Lane                                 | Completed      |
| Faversham Road | Lenham                 | Whole Road   | Completed      |
| West Street    | Lenham                 | Faversham Road to Flint Lane<br>(West Street) Lenham       | Completed      |
| Marden Road    | Marden                 | Battle Lane to "Mountain Farmhouse"                        | Completed      |
| Maidstone Road | Marden                 | "Hartridge" to 150m north of j/w Milebush Lane (Kiln Farm) | Completed      |

| Headcorn Road             | Platts Heath /<br>Lenham | Chain Gate Road to Station<br>Approach, Lenham                    | Completed                     |
|---------------------------|--------------------------|---|-------------------------------|
| Headcorn Road             | Sandway                  | Headcorn Road to Sandway<br>Road                                  | Completed                     |
| Sandway Road              | Sandway                  | Headcorn Road to "Little<br>Biggen"                               | Completed                     |
| Gallants Lane             | East Farleigh            | Lower Road to Heath Road  | Completed                     |
| Hunton Road               | Marden                   | River Beult bridge (Clapper<br>Green) to "Reed Court<br>Cottages" | Completed                     |
| Old Tree Lane/Cliff Hill  | Boughton<br>Monchelsea   | From The Quarries to Combe<br>Bank House -                        | To Be<br>Programmed           |
| Sandway Road              | Platts Heath             | Platts Heath Around "Sandway Triangle"                            |                               |
| Kenward Road              | Yalding                  | Yalding Hunt Street to Yalding Hill                               |                               |
| Bow Road                  | Wateringbury             | Corner after bridge to Hunt<br>Street                             | Completed                     |
| Smith's Hill              | Yalding                  | To Be Confirmed   | Completed                     |
| Surface Treatments – Conf | act Officer Mr Jonat     | han Dean  |                               |
| Surface Dressing          |                          |   |                               |
| Road Name                 | Parish                   | Extent and Description of Works                                   | Current Status                |
| A20 Ashford Road          | Hollingbourne            | Near j/w Old Mill Road to j/w<br>Roundwell                        | Programmed for<br>August 2019 |
| A20 Ashford Road          | Hollingbourne            | Old Ashford Road to<br>Northdown Close                            | Programmed for<br>August 2019 |
| Charlton Lane             | East Sutton              | From Chartway Street to Church Lane                               | Programmed for<br>August 2019 |

## **Appendix B - Drainage**

| Drainage R             | Repairs & Improvemer | nts - Contact Officer Earl Bourner   |   |
|------------------------|----------------------|--|---|
| Road<br>Name           | Parish               | Description of Works   | Current Status  |
| Green<br>Lane          | Chart Sutton         | Repair the culvert and edge of road/ verge/ ditch.   | Work is in progress.<br>Hopefully completed by<br>1/9/19.   |
| Tufa<br>Close          | Walderslade          | Relocation of soakaway   | Completed   |
| Smith's<br>Hill        | West Farleigh        | Investigation works  | Cleansing works complete further investigation required at Shingle Barn Lane.   |
| The<br>Broadway        | Maidstone            | Surface water system surcharging   | It has been identified that the issue is due to the Southern Water system. Southern Water will now be responsible for this site |
| Dray<br>Corner<br>Road | Headcorn             | Further investigation works required   | Awaiting start date   |
| Dunn<br>Street         | Bredhurst            | Repair broken pipe   | Awaiting start date   |
| Fisher<br>Street       | Maidstone            | Reports of broken pipes and repairs to be carried out  | Awaiting start date   |
| Lower<br>Road          | East Farleigh        | Repair broken pipes  | Awaiting start date   |
| West<br>Street         | Hunton               | Repair broken pipes  | Awaiting start date   |
| The<br>Street          | Boxley               | To carry out a drainage CCTV survey and cleanse to locate outfall of system and check for defects. | Originally programmed<br>for 18/8/19, abandoned<br>due to TM issues on the<br>day. New programme<br>date is Sunday 8/9/19.      |
| Sheals<br>Crescent     | Maidstone            | To carry out drainage CCTV investigation.  | Awaiting start date   |

## Appendix C - Street Lighting

Column replacement testing of KCC owned streetlights has identified the following as requiring replacement. A status of complete identifies that the column replacement has been carried out. Programme dates are identified for those still requiring replacement.

| Road Name          | Column  | Parish      | Description of Works        | Status                           |
|--------------------|---------|-------------|-----------------------------|----------------------------------|
| Warwick Place      | KWAI502 | Maidstone   | Lit Sign Replacement        | Completion end<br>September 2019 |
| Warwick Place      | KWAI501 | Maidstone   | Lit Sign replacement        | Completion end<br>September 2019 |
| Brishing Lane      | KBFE010 | Maidstone   | Replacement of Street Light | Completion by<br>December 2019   |
| High Street        | KHDO053 | Staplehurst | Replacement of Street Light | Completed                        |
| Milton Street      | KMCW503 | Maidstone   | Lit Sign replacement        | Completed                        |
| Whitmore<br>Street | KWCR501 | Maidstone   | Lit Sign replacement        | Completion by<br>December 2019   |
| Station Road       | KSFA029 | Staplehurst | Replacement of Street Light | Completion by<br>December 2019   |
| Castle Dene        | KCAO002 | Maidstone   | Replacement of Street Light | Completed                        |
| Impton Lane        | KIAC001 | Boxley      | Replacement of Street Light | Completed                        |
| Maynards           | KMBY002 | Marden      | Replacement of Street Light | Completed                        |
| Egerton Road       | KEAQ003 | Ringlestone | Replacement of Street Light | Completion by<br>December 2019   |
| King Street        | KKAM009 | Maidstone   | Replacement of Street Light | Completion by<br>December 2019   |
| Woodlands          | KXEF107 | Boxley      | Replacement of Street Light | Completed                        |
| Howard Drive       | KHFD002 | Allington   | Replacement of Street Light | Completion by March<br>2020      |
| Howard Drive       | KHFD016 | Allington   | Replacement of Street Light | Completion by March<br>2020      |
| Trevor Drive       | KTCI016 | Allington   | Replacement of Street Light | Completion by March<br>2020      |

|                        | I       | I                    |                             |                          |
|------------------------|---------|----------------------|-----------------------------|--------------------------|
| ERNEST<br>DRIVE        | KEBA004 | ALLINGTON            | Replacement of Street Light | Completion by March 2020 |
| LEONARD<br>CLOSE       | KLBG004 | ALLINGTON            | Replacement of Street Light | Completion by March 2020 |
| BRACKEN<br>HILL        | KBIC008 | BOXLEY               | Replacement of Street Light | Completion by March 2020 |
| OLD<br>CHATHAM<br>ROAD | KOAI001 | BOXLEY               | Replacement of Street Light | Completion by March 2020 |
| BELLGROVE<br>COURT     | KBIF001 | BOXLEY               | Replacement of Street Light | Completion by March 2020 |
| BRACKEN<br>HILL        | KBIC008 | BOXLEY               | Replacement of Street Light | Completion by March 2020 |
| WILDFELL<br>CLOSE      | KWFE016 | BOXLEY               | Replacement of Street Light | Completion by March 2020 |
| VICTORIA<br>STREET     | KVAJ003 | BRIDGE               | Replacement of Street Light | Completion by March 2020 |
| CORNWALLIS<br>ROAD     | KCFT005 | BRIDGE               | Replacement of Street Light | Completion by March 2020 |
| TRAPHAM<br>ROAD        | KTCF006 | BRIDGE               | Replacement of Street Light | Completion by March 2020 |
| PALMAR<br>ROAD         | KPAF007 | BRIDGE               | Replacement of Street Light | Completion by March 2020 |
| PEMBROKE<br>ROAD       | KPAW014 | COXHEATH &<br>HUNTON | Replacement of Street Light | Completion by March 2020 |
| DERINGWOOD<br>DRIVE    | KDAL005 | DOWNSWOOD<br>& OTHAM | Replacement of Street Light | Completion by March 2020 |
| DERINGWOOD<br>DRIVE    | KDAL006 | DOWNSWOOD<br>& OTHAM | Replacement of Street Light | Completion by March 2020 |
| DERINGWOOD<br>DRIVE    | KDAL007 | DOWNSWOOD<br>& OTHAM | Replacement of Street Light | Completion by March 2020 |
| DERINGWOOD<br>DRIVE    | KDAL009 | DOWNSWOOD<br>& OTHAM | Replacement of Street Light | Completion by March 2020 |
| DERINGWOOD<br>DRIVE    | KDAL021 | DOWNSWOOD<br>& OTHAM | Replacement of Street Light | Completion by March 2020 |
| DERINGWOOD<br>DRIVE    | KDAL022 | DOWNSWOOD<br>& OTHAM | Replacement of Street Light | Completion by March 2020 |

| TONBRIDGE<br>ROAD  | KTBU017 | FANT  | Replacement of Street Light | Completion by March 2020 |
|--------------------|---------|-------|-----------------------------|--------------------------|
| TONBRIDGE<br>ROAD  | KTBU022 | FANT  | Replacement of Street Light | Completion by March 2020 |
| TONBRIDGE<br>ROAD  | KTBU031 | FANT  | Replacement of Street Light | Completion by March 2020 |
| TONBRIDGE<br>ROAD  | KTBU036 | FANT  | Replacement of Street Light | Completion by March 2020 |
| TONBRIDGE<br>ROAD  | KTBU046 | FANT  | Replacement of Street Light | Completion by March 2020 |
| TONBRIDGE<br>ROAD  | KTBU050 | FANT  | Replacement of Street Light | Completion by March 2020 |
| TONBRIDGE<br>ROAD  | KTBU051 | FANT  | Replacement of Street Light | Completion by March 2020 |
| TONBRIDGE<br>ROAD  | KTBU055 | FANT  | Replacement of Street Light | Completion by March 2020 |
| MANSFIELD<br>WALK  | KMFW202 | FANT  | Replacement of Street Light | Completion by March 2020 |
| WHITMORE<br>STREET | KWCR005 | FANT  | Replacement of Street Light | Completion by March 2020 |
| DOVER<br>STREET    | KDBB004 | FANT  | Replacement of Street Light | Completion by March 2020 |
| GLEBE LANE         | KGAS006 | FANT  | Replacement of Street Light | Completion by March 2020 |
| TERMINUS<br>ROAD   | KTAD009 | FANT  | Replacement of Street Light | Completion by March 2020 |
| OAKWOOD<br>COURT   | KOAD003 | HEATH | Replacement of Street Light | Completion by March 2020 |
| HEATH ROAD         | KHCH005 | HEATH | Replacement of Street Light | Completion by March 2020 |
| QUEENS<br>ROAD     | KQAG004 | HEATH | Replacement of Street Light | Completion by March 2020 |
| QUEENS<br>ROAD     | KQAG019 | HEATH | Replacement of Street Light | Completion by March 2020 |
| CHARLBURY<br>CLOSE | KCBH001 | HEATH | Replacement of Street Light | Completion by March 2020 |

|                     | 1       |                |                             |                             |
|---------------------|---------|----------------|-----------------------------|-----------------------------|
| STANFORD<br>DRIVE   | KSEI001 | HEATH          | Replacement of Street Light | Completion by March 2020    |
| MILL WALK           | KMCT002 | HEATH          | Replacement of Street Light | Completion by March 2020    |
| ST PETERS<br>BRIDGE | KSCE001 | HIGH STREET    | Replacement of Street Light | Completion by March 2020    |
| COLLEGE<br>ROAD     | KCFC005 | HIGH STREET    | Replacement of Street Light | Completion by March 2020    |
| LOWER ROAD          | KLCU003 | HIGH STREET    | Replacement of Street Light | Completion by March 2020    |
| UPPER ROAD          | KUBR010 | HIGH STREET    | Replacement of Street Light | Completion by March 2020    |
| KING STREET         | KKAM021 | HIGH STREET    | Replacement of Street Light | Completion by March 2020    |
| LINTON ROAD         | KLBS011 | LOOSE          | Replacement of Street Light | Completion by March 2020    |
| LOOSE ROAD          | KLCQ094 | MAIDSTONE      | Replacement of Street Light | Completion by March 2020    |
| EGERTON<br>ROAD     | KEAQ001 | NORTH          | Replacement of Street Light | Completion by March 2020    |
| BICKNOR<br>ROAD     | KBCG001 | NORTH<br>DOWNS | Replacement of Street Light | Completion by March 2020    |
| BICKNOR<br>ROAD     | KBCG010 | NORTH<br>DOWNS | Replacement of Street Light | Completion by March 2020    |
| BICKNOR<br>ROAD     | KBCG011 | NORTH<br>DOWNS | Replacement of Street Light | Completion by March 2020    |
| BICKNOR<br>ROAD     | KBCG012 | NORTH<br>DOWNS | Replacement of Street Light | Completion by March 2020    |
| BICKNOR<br>ROAD     | KBCG037 | NORTH<br>DOWNS | Replacement of Street Light | Completion by March 2020    |
| BICKNOR<br>ROAD     | KBCG041 | NORTH<br>DOWNS | Replacement of Street Light | Completion by March 2020    |
| BICKNOR<br>ROAD     | KBCG042 | NORTH<br>DOWNS | Replacement of Street Light | Completion by March<br>2020 |
| ASHFORD<br>ROAD     | KABO063 | NORTH<br>DOWNS | Replacement of Street Light | Completion by March 2020    |

|                     | 1       |                  | T =                         |                          |
|---------------------|---------|------------------|-----------------------------|--------------------------|
| ASHFORD<br>ROAD     | KABO064 | NORTH<br>DOWNS   | Replacement of Street Light | Completion by March 2020 |
| WALLIS<br>AVENUE    | KWAD016 | PARK WOOD        | Replacement of Street Light | Completion by March 2020 |
| BELL ROAD           | KBBS005 | PARK WOOD        | Replacement of Street Light | Completion by March 2020 |
| GREENFIELDS         | KGCA002 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| MARION<br>CRESCENT  | KMBK002 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| MARION<br>CRESCENT  | KMBK004 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| MARION<br>CRESCENT  | KMBK009 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| CRANBORNE<br>AVENUE | KCGL014 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| LONGFIELD<br>PLACE  | KLCN001 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| HOLTYE<br>CRESCENT  | KHER002 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| HOLTYE<br>CRESCENT  | KHER006 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| HOLTYE<br>CRESCENT  | KHER007 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| RUTLAND<br>WAY      | KRCC002 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| DENTON<br>CLOSE     | KDAJ003 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| THE SPINNEY         | KTDS001 | SHEPWAY<br>NORTH | Replacement of Street Light | Completion by March 2020 |
| SUTTON<br>ROAD      | KSGF006 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| SUTTON<br>ROAD      | KSGF007 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| SUTTON<br>ROAD      | KSGF039 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |

|                       | ī       | I                | I                           |                          |
|-----------------------|---------|------------------|-----------------------------|--------------------------|
| KENNINGTON<br>CLOSE   | KKAD005 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| CAMBRIDGE<br>CRESCENT | KCAC016 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| GRAVENEY<br>ROAD      | KGBL003 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| GRAVENEY<br>ROAD      | KGBL009 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| CRANBROOK<br>CLOSE    | KCGM001 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| ESSEX ROAD            | KEBB006 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| WESTMARSH<br>CLOSE    | KWBT003 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| IFIELD CLOSE          | KIAB004 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| WINGHAM<br>CLOSE      | KWDI005 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| FREEMAN<br>WAY        | KFCN002 | SHEPWAY<br>SOUTH | Replacement of Street Light | Completion by March 2020 |
| NORRINGTON<br>ROAD    | KNAR007 | SOUTH            | Replacement of Street Light | Completion by March 2020 |
| CRANBROOK<br>ROAD     | KCGN068 | STAPLEHURST      | Replacement of Street Light | Completion by March 2020 |
| CRANBROOK<br>ROAD     | KCGN073 | STAPLEHURST      | Replacement of Street Light | Completion by March 2020 |
| STATION<br>ROAD       | KSFA018 | STAPLEHURST      | Replacement of Street Light | Completion by March 2020 |
| STATION<br>ROAD       | KSFA021 | STAPLEHURST      | Replacement of Street Light | Completion by March 2020 |
| STATION<br>ROAD       | KSFA024 | STAPLEHURST      | Replacement of Street Light | Completion by March 2020 |
| HIGH STREET           | KHDO057 | STAPLEHURST      | Replacement of Street Light | Completion by March 2020 |

## <u>Appendix D – Transportation and Safety Schemes</u>

The Schemes Planning & Delivery team is implementing schemes within the Maidstone district, in order to meet Kent County Council's (KCC) strategic targets (for example, addressing traffic congestion or improving road safety). Casualty reduction measures have been identified to address a known history of personal injury crashes. Current status correct as of 23/9/19.

## **Casualty Reduction Measures**

| Location  | Parish        | Description of Works                               | Lead officer     | Current Status   |
|---|---------------|--|------------------|--|
| Great Danes<br>Roundabout                                   | Hollingbourne | Signing and road marking improvements              | Jennie<br>Watson | Works complete   |
| Mill Street/Palace<br>Avenue                                | Maidstone     | Lining refreshing                                  | Jennie<br>Watson | Works partially completed in October 2018 – Yellow box markings completed – Contractor to return to refresh white lining |
| A20 Ashford Road,<br>Lenham                                 | Lenham        | Scheme to make changes to junction                 | Jennie<br>Watson | Works are substantially complete – Minor snagging items to be completed  |
| Springfield<br>Roundabout - A229<br>Royal Engineers<br>Road | Maidstone     | Signing and road marking improvements              | Paul Leary       | Following detailed analysis, tree clearance only to be carried out   |
| St Faiths Street/<br>Fairmeadow                             | Maidstone     | Signing and road marking improvements              | Jennie<br>Watson | Works passed to contractor – Programmed for 8 October (weather dependent)  |
| A229 Lower Stone<br>Street/ Knightrider<br>Street           | Maidstone     | Introduction of red-light camera monitoring survey | Jennie<br>Watson | ITS Team arranging red light camera monitoring survey over 7 days – Date to be confirmed                                 |
| Boxley<br>Road/Sandling<br>Lane, roundabout                 | Maidstone     | Signing and road marking improvements              | Jennie<br>Watson | Works complete 6<br>September 2019   |
| A20 Ashford<br>Road/M20 Slip                                | Hollingbourne | Signing and road marking improvements              | Jennie<br>Watson | At design stage –<br>Scheme to be<br>progressed this<br>financial year   |

Integrated Transport Schemes – all other LTP funded non-casualty reduction schemes

| Location                        | Parish           | Description of Works  | Lead<br>officer | Current Status  |
|---------------------------------|------------------|---|-----------------|---|
| East Farleigh Bridge            | East<br>Farleigh | Upgrade of signing and lining for bridge width restriction                                  | Paul<br>Leary   | Works completed May 2019. Minor snagging items to be carried out                        |
| Mote Park Cycleway<br>(Phase 1) | Maidstone        | Upgrade of cycle route  | Paul<br>Leary   | Works completed May 2019. Minor snagging items to be carried out.                       |
| Mote Park Cycleway<br>(Phase 2) | Maidstone        | Signing and road<br>marking improvements<br>between Chancery<br>Lane and Maidstone<br>House | Paul<br>Leary   | Works handed over to<br>contractor –<br>Anticipated<br>completion late<br>December 2019 |

## **Local Growth Fund**

## Local Growth Fund programme update for the Maidstone Borough.

The Department for Transport (DfT) added £100m to the Local Growth Fund (LGF) pot in order to fund Local Sustainable Transport Fund Style schemes. KCC were successful in securing LGF for the following sustainable transport style bids1) Kent Thameside – Integrated door-to-door journeys and 2) West Kent – Tackling Congestion. The objective of the capital bids is to boost economic growth by decreasing carbon emissions and reducing congestion.

The schemes aim to:

- improve access to employment and services
- reduce the need to travel by the private car
- enhance pedestrian, cycle and public transport facilities
- improve sustainable transport connections

The following schemes have been submitted as part of the successful Kent Thameside LSTF this financial year.

| Scheme                                    | Status  |
|---|---|
| MAIDSTONE<br>EAST STATION<br>IMPROVEMENTS | The newly appointed Asbestos and demolition specialist Rhodar are now on site and have begun demolition of the public house. This is currently running to programme, under asbestos controlled conditions, with most of the roof now removed. The whole ground floor has been cleared of all soft items, such as the bar, doors, partitions, etc, and the basement has been cleared in preparation for backfilling the area to provide protection to the tunnel during the demolition works. The expected completion of the overall programme will be clearer once the demolition of the pub is further completed but is currently expected to be in May/June 2020.  Any public enquiries are being dealt with by Network Rail. Additional KSIP funding has now been confirmed to progress further highway improvements and walking and cycling connections to the station. |

## Appendix E – Developer Funded Works

Developer Funded Works (Section 278 Agreement Works) Maidstone Borough - Contact Officer Claremarie Vine, other officers for sites Jamie Hare, Aaron Divall, Steven Noad, Sarah Parris, Andy Padgham, Steve A Stickels

| Scheme Name   | File Ref.        | Offi<br>cer | Parish                 | Description of<br>Works  | Current Status  |
|---|------------------|-------------|------------------------|--|---|
| BP Tudor Service<br>Station, London<br>Road             | MA003072         | CV          | Allington              | Alterations to existing access   | Pedestrian crossing point and additional signage still to do.             |
| Bell Farm, North<br>Street                              | MA003098         | SN          | Barming                | New accesses<br>to split sites,<br>shared surface<br>and new<br>crossing point | Agreement signed;<br>highway works largely<br>completed.                  |
| Cross Keys  | MA003100         | JH          | Bearsted               | New access,<br>crossing point<br>and parking<br>area                           | Agreement signed  |
| Barty Farm,<br>Roundwell                                | MA003278         | AD          | Bearsted               | New Bellmouth<br>and Lining<br>works   | Agreement Signed  |
| Bicknor Road  | MA003256         | AP          | Bicknor                | Formation of hard surfaced passing places                                      | Awaiting technical approval   |
| Heath<br>Road/Church<br>Street                          | MA003111         | SP          | Boughton<br>Monchelsea | New access,<br>footway works,<br>yellow lines and<br>crossing<br>upgrade       | High Friction surfacing re-laid. Inspection due for start of maintenance. |
| Hubbards Lane   | MA003084         | CV          | Boughton<br>Monchelsea | Two accesses<br>to minor<br>developments                                       | Works completed on both accesses, pedestrian crossing point to add        |
| Lyewood Farm,<br>Green Lane                             | MA3247<br>MA3248 | AP          | Boughton<br>Monchelsea | New housing development and access   | Awaiting technical approval   |
| Goya<br>Development, St<br>Michaels Close,<br>Aylesford | MA003123         | SP          | Boxley                 | New access and footway work to new commercial properties                       | Works complete except for new gulley.                                     |
| Maidstone Studios,                                      | MA003110         |             | Boxley                 | Zebra crossing   | Defective High Friction   |

| New Cut Road                           |          | SP |             | and pedestrian crossing points   | surfacing requires further attention  |
|--|----------|----|-------------|--|---|
| St Michaels Close,<br>Aylesford        | MA003103 | CV | Boxley      | Waitrose car<br>park, new<br>access  | Final remedials due   |
| Forstal Lane                           | MA003141 | SP | Coxheath    | Widening of road and new footpath with access to new development                                 | Agreement Signed Awaiting works start date  |
| Heath Road<br>(North side)             | MA003063 | CV | Coxheath    | New access and<br>Footway work   | Works completed and in maintenance  |
| Land north of<br>Heath Road Phase<br>2 | MA3257   | SP | Coxheath    | Access to new development  | Agreement signed Awaiting works start date  |
| Linden Farm,<br>Stockett Lane          | MA003107 | SP | Coxheath    | Access to new development and footway link to community hall                                     | Access & footway completed further 2 accesses to restore to footway near completion of development. |
| Gatland House,<br>Gatland Lane         | MA003081 | CV | Fant ward   | Parking<br>restrictions,<br>signage, road<br>markings and<br>tactile crossings<br>for new school | Works completed,<br>Remedials to do   |
| Bell Farm, Ashford<br>Road             | MA003094 | CV | Harrietsham | Realignment of<br>Church Road to<br>form new<br>access onto<br>A20. New<br>footway along<br>A20  | Works completed and in maintenance.   |
| Mayfield Nursery,<br>Ashford Road      | MA003135 | SP | Harrietsham | New access and alterations to existing Highway to adjoin upcoming Scheme Works                   | Works ongoing on site currently in conjunction with Harrietsham improvement scheme                  |
| Forge Meadows                          | MA3253   | AP | Headcorn    | Access to 2 new properties and vehicle crossovers to existing                                    | Awaiting technical approval   |

|                                |          |    |               | properties  |   |
|--------------------------------|----------|----|---------------|---|---|
| Grigg Lane &<br>Wheeler Street | MA3250   | SP | Headcorn      | Access Gibbs<br>Farm<br>development;<br>zebra crossing<br>on Wheeler St | Technical approval granted, agreement in progress   |
| Grigg Lane,<br>Lenham Road,    | MA003050 | CV | Headcorn      | Access onto Grigg Lane and Lenham Road. Footway on Grigg Lane           | New accesses Grigg Lane<br>and Lenham Road in<br>place, New footway Grigg<br>Lane completed |
| Kings<br>Road/Millbank         | MA3262   | AP | Headcorn      | Signalised<br>crossroads<br>(linked to<br>Ulcombe Road<br>MA3150)       | Technical approval granted,<br>Agreement in progress  |
| Lenham Road<br>(North side)    | MA003062 | CV | Headcorn      | New Footway to<br>site and extends<br>speed limit<br>boundary           | Works completed and in Maintenance  |
| Lenham Road<br>(South side)    | MA003057 | CV | Headcorn      | New footway   | Agreement prepared  |
| Oak Lane and<br>Wheeler Street | MA003048 | CV | Headcorn      | New footway plus junction improvements                                  | Works completed and in maintenance  |
| Ulcombe Road                   | MA003150 | SP | Headcorn      | Access to new development   | Agreement signed  |
| Wheeler Street,<br>Headcorn    | MA003137 | SP | Headcorn      | 2 new accesses - off Wheeler Street and Kingsland Grove                 | Awaiting works start date   |
| Eyhorne Street                 | MA3198   | AP | Hollingbourne | New access to development   | Awaiting technical approval   |
| Ledian Farm                    | MA003086 | JH | Leeds         | New access to development at Ledian Farm                                | Now Adopted   |
| 8 Faversham Road               | MA003032 | CV | Lenham        | New access  | In maintenance; streetlight to replace  |
| Old Ashford Road               | MA003018 | CV | Lenham        | New footway plus access   | Approaching end of maintenance, bus stop location to amend.                                 |
| The Paddocks,<br>Ashford Road  | MA3114   | CV | Lenham        | New access,<br>traffic island,  | Footway built, remaining  |

| (Grove House, Old<br>Ashford Road)              |          |    |           | speed reduction<br>to 50mph &<br>f/way link to<br>Faversham Rd                 | works to complete Oct 19                                |
|---|----------|----|-----------|--|---|
| Westwood Park,<br>Ham Lane                      | MA003305 | AP | Lenham    | Main and emergency accesses to new housing development                         | Awaiting technical approval                             |
| Royal Engineers<br>Rd/Mill Lane                 | MA3312   | JH | Maidstone | Access to New Development  | Under Technical Review                                  |
| 531 Tonbridge<br>Road                           | MA003045 | CV | Maidstone | Service layby for new retail unit  | In maintenance  |
| Bicknor Green,<br>Gore Court Road               | MA003053 | AD | Maidstone | Change of road priorities and widening / upgrading                             | Works mostly complete                                   |
| Hartnup Street                                  | MA003138 | SP | Maidstone | New Access   | Works complete now in maintenance.                      |
| Heath Road,<br>Coxheath                         | MA003134 | SP | Maidstone | New access and new footway   | Agreement signed awaiting start date                    |
| Hermitage Lane,<br>(opp. Maidstone<br>Hospital) | MA003060 | JH | Maidstone | New Traffic signal junction  | Near to adoption  |
| Hermitage Lane/<br>Howard Drive                 | MA003070 | AD | Maidstone | New access for development (opposite the quarry entrance)                      | Works complete  |
| Howard Drive                                    | MA003303 | AD | Maidstone | Junction works<br>to facilitate Bus<br>Gateway<br>entrance to<br>Croudace site | Agreement Signed  |
| Maidstone School<br>of Science, New<br>Cut Road | MA003197 | SP | Maidstone | New access to<br>School and New<br>roundabout and<br>alterations to<br>Highway | Agreement signed Awaiting road space and start date     |
| McDonalds drive-<br>through, Hart<br>Street     | MA003013 | CV | Maidstone | New access, improvements to Hart Street.                                       | Approaching the end of maintenance - remedial works due |

| Oakapple Lane/<br>Hermitage Lane                               | MA003046 | AD | Maidstone | New bellmouth junction and associated ancillary works for new development including new bus stop | Works Complete – in maintenance  |
|--|----------|----|-----------|--|--|
| Royal Engineers<br>Road  | MA003127 | SP | Maidstone | New footpaths to development   | Awaiting funds and works start date  |
| The Poplars,<br>Ashford Road                                   | MA3254   | AP | Maidstone | Access to new development  | Approval granted;<br>Agreement due for signing   |
| Wallis Avenue<br>Phase 3, Parkwood                             | MA003085 | CV | Maidstone | Some stopping up of highway and redevelopment of old carpark and shops area opp. Longshaw Road   | Works complete   |
| Week St/Gabriel's<br>Hill                                      | MA003120 | SP | Maidstone | Town Centre<br>Public Realm<br>improvements  | Completed and inspected for maintenance  |
| Heath Road   | MA3326   | JH | Linton    | New Access   | Under Technical review   |
| Albion Road,<br>Marden   | MA003132 | SP | Marden    | New Access<br>and<br>development   | S278 works part completed.   |
| Goudhurst Road,<br>Church Green<br>(Plain Road<br>development) | MA3118   | CV | Marden    | Install Zebra crossing near rail station.  | Completed – in<br>Maintenance  |
| Goudhurst<br>Road/West End<br>(Plain Road<br>Development)      | MA3118   | CV | Marden    | Refurbish Zebra<br>crossing outside<br>school and Bus<br>Borders to add<br>by Library stops.     | Work completed and in maintenance  |
| Howland Road   | MA003088 | SN | Marden    | New<br>development<br>access   | Agreement signed;<br>highway works largely<br>complete   |
| MAP Depot,<br>Goudhurst Road                                   | MA003012 | CV | Marden    | New bellmouth junction and footway   | Works in maintenance. Remedial works near completed and interactive speed sign awaiting installation |

| Napoleon Drive<br>and Plain Road                 | MA003079             | CV | Marden            | New access on<br>each road for<br>new housing<br>development                 | Works Completed  |
|--|----------------------|----|-------------------|--|--|
| The Parsonage,<br>Goudhurst Road                 | MA003066<br>MA003067 | CV | Marden            | New access and associated upgrade works                                      | Access substantially completed, village gateway to be agreed     |
| Bell Lane  | MA003030             | CV | Staplehurst       | Upgrade of existing access for new development                               | Due for adoption.  |
| Fishers Farm<br>(East) Headcorn<br>Road (Redrow) | MA3106               | SP | Staplehurst       | Realignment<br>and new access<br>at Headcorn<br>Road/Pile Lane<br>junction   | Realignment complete and Pile Lane open                          |
| Fishers Farm<br>(West), Headcorn<br>Road (Bovis) | MA3037               | SP | Staplehurst       | New access<br>onto Headcorn<br>Road  | Works commenced on both S278 and S38                             |
| Hen and Duckhurst<br>Farm, Marden<br>Road        | MA003109             | CV | Staplehurst       | New<br>Roundabout for<br>development<br>access                               | Works on highway almost completed. HFS delayed by utility works. |
| Oliver Road<br>Staplehurst                       | MA003019             | CV | Staplehurst       | Ped crossing to<br>Marden Road,<br>junction<br>markings and<br>bus boarders  | Works completed  |
| Woodford Park                                    | MA003099             | SP | Staplehurst       | New access for 9 dwellings   | Works completed and on to maintenance.                           |
| Appleacres,<br>Maidstone Road                    | MA003152             | SP | Sutton<br>Valence | Access to new development and footway works                                  | Technical Approval given awaiting Legal Agreement                |
| The Oaks,<br>Maidstone Road                      | MA003078             | CV | Sutton<br>Valence | Upgrade existing Vehicle crossing access to Bellmouth with tactile crossing. | Works complete   |
| Valdene Industrial<br>Estate                     | MA003054             | CV | Sutton<br>Valence | Upgrade of existing bellmouth and extension to f/w                           | Footway works carried out; access works due Oct 2019.            |

| Cripple Street<br>Maidstone                                       | MA003093 | CV | Tovil       | New access to<br>development,<br>widening and<br>footway works                                   | Due for adoption –<br>remedials due                                 |
|---|----------|----|-------------|--|---|
| Site opposite<br>cottages 129-147<br>Dean<br>Street/Farleigh Hill | MA003007 | CV | Tovil       | New access<br>speed limit<br>relocation, new<br>footway and bus<br>stop provision                | Works completed and in maintenance                                  |
| Tovil Green Lane  | MA003095 | CV | Tovil       | New Footway<br>and crossing<br>point to side of<br>site  | Remedials completed – in maintenance                                |
| Hampstead Lane  | MA3101   | SP | Yalding     | Relocate access<br>to new<br>development at<br>old depot adj.<br>station. Minor<br>footway works | Into maintenance period   |
| Vicarage Road   | MA003121 | SP | Yalding     | New access to development and speed restraints on existing Highway                               | Technical Approval<br>Granted                                       |
| Bentletts Yard,<br>Claygate Road,<br>Laddingford                  | MA003357 | SP | Laddingford | New footway<br>and replaced<br>surface to<br>existing access                                     | Awaiting Technical approval although some works already carried out |
| Old Ashford Road,<br>Adj Groom Way                                | MA003356 | SP | Lenham      | New access and footway   | Awaiting Technical<br>Approval                                      |

|                       | Developer Funded Works (Section 106 Works) |              |  |  |  |  |  |
|-----------------------|--|--------------|--|--|--|--|--|
| File Ref.             |  |              |  | _  |  |  |  |
|                       | Road Name                                  | Parish       | Description of Works   | Current Status   |  |  |  |
| 18/19-S106-<br>MA-486 | A20 Ashford<br>Road                        | Harrietsham  | Village improvement works: 2 phase approach.  Phase 1 which consisted of narrowing the carriageway, widening footways to allow shared footway/cycleway, altering the controlled crossing, provision of central islands and changes to the speed limits and associated signing and lining.  Phase 2 will include relocating street lighting columns to better suit the new road layout and to extend the lighting to include all the 30mph limit. Resurfacing of the carriageway to hide the old white lining and then new lining to the recently installed layout. | Phase 1 Works completed in June 2019. KCC investigating how phase 2 can be brought forward. Kent County Council are to collect the remaining S106 contribution from Bellway Homes now less the indexation.  Please see separate report.  |  |  |  |
| 18/19-S106-<br>MA-819 | Linton<br>Crossroads                       | Linton/Loose | Junction/signal upgrade  | Finalising designs however the estimated cost of the alterations is significantly above the S106 contributions available. KCC is to investigate how any funding gap can be dealt with. It is hoped that a public consultation can be undertaken around October/November with implementation in 2020 pending all land, environmental and funding issues being resolved. |  |  |  |

## Appendix F - Bridge Works

| Bridge Works – Contact Officer Earl Bourner |        |                      |                |  |  |  |
|---|--------|----------------------|----------------|--|--|--|
| Road Name                                   | Parish | Description of Works | Current Status |  |  |  |
| No planned works                            |        |                      |                |  |  |  |

## Appendix G - Traffic Systems

There is a programme of scheduled maintenance to refurbish life expired traffic signal equipment across the county based upon age and fault history. The delivery of these schemes is dependent upon school terms and holiday periods; residents, businesses and schools will be informed verbally and by a letter drop of the exact dates when known.

| Traffic Systems - Contact Officer: Toby Butler      |   |                           |  |  |  |
|---|---|---------------------------|--|--|--|
| Location  | Description of Works                                | Current Status            |  |  |  |
| A26 Tonbridge Road near Milton Street,<br>Maidstone | Refurbishment of traffic signal-controlled crossing | Programmed August 2019    |  |  |  |
| B2162 Twyford Bridge, Yalding                       | Refurbishment of traffic signals                    | To be Programmed          |  |  |  |
| A229 Fairmeadow/ Medway Street                      | Refurbishment of traffic signal-controlled junction | Programmed September 2019 |  |  |  |
| A20 London Road near Broadway                       | Replacement of signal controller                    | Programmed September 2019 |  |  |  |
| A20 Tonbridge Road near Station<br>Approach         | Replacement of signal controller                    | Programmed September 2019 |  |  |  |

## Appendix H - Combined Member Grant programme update

## Member Highway Fund programme update for the Maidstone district

The following schemes are those, which have been approved for funding by both the relevant Member and by Simon Jones, Director of Highways, Transportation and Waste. The list only includes schemes, which are

- in design
- at consultation stage
- about to be programmed
- · Recently completed on site.

The list is up to date as of 23/9/19

The details given below are for highway projects only. This report does not detail

- Contributions Members have made to other groups such as parish councils
- highway studies
- traffic/ non-motorised user surveys funded by Members.

More information on the schemes listed below can be found by contacting the District Manager for the Maidstone district, Susan Laporte.

## Dan Daley and Rob Bird

| Details of Scheme                           | Status         |
|---|----------------|
| 18/19-CMG-MA-722 – Queens Avenue, Maidstone |                |
| Construction of build out for part one way  | Works Complete |

### **Eric Hotson**

| Details of Scheme  | Status                   |
|--|--------------------------|
| 19/20-CMG-MA-923 – Church Hill, Boughton Monchelsea            |                          |
| Traffic Regulation Order application for speed limit reduction | TRO sealed -<br>Complete |

### **Paulina Stockell**

| Details of Scheme  | Status       |
|--|--------------|
| 19/20-CMG-MA-947 – Darman Lane, Laddingford, Yalding           |              |
|  | TRO sealed - |
| Traffic Regulation Order application for speed limit reduction | Complete     |

- 1.1 Legal Implications
- 1.1.1 Not applicable.
- **1.2** Financial and Value for Money Considerations
- 1.2.1 Not applicable.
- 1.3 Risk Assessment
- 1.3.1 Not applicable.

Contacts: Kirstie Williams/ Susan Laporte 03000 418181