

From: Barbara Cooper – Corporate Director of Growth, Environment and Transport

To: Michael Payne, Cabinet Member for Highways & Transport

Subject: **Urban Traffic Management and Control (UTMC)**

**Decision Number: 21/00007**

Classification: **Unrestricted**

**Electoral Division:**

This scheme covers several junctions across the urban areas of Dartford and Gravesham.

Dartford North East – Cllr Dave Butler  
Dartford East – Cllr Penny Cole  
Dartford West – Cllr Jan Ozog  
Swanscombe and Greenhithe – Cllr Peter Harman  
Wilmington – Cllr Ann Allen

Northfleet and Gravesend West – Cllr John Burden and Cllr Dr Lauren Sullivan  
Gravesend East – Cllr Diane Marsh and Cllr Alan Ridgers

**Summary:**

This report seeks Member approval for a fully funded scheme to upgrade the existing Urban Traffic Management and Control (UTMC) system by ensuring the traffic signal junctions within or adjacent to Ebbsfleet Garden City are utilising the latest traffic control systems.

The purpose of the scheme is to improve journey times for all road users and ensure that the transport infrastructure across Ebbsfleet and the surrounding area is used as efficiently as possible.

The total budget for this scheme is £5.656m and is funded by a combination of S106 contributions to the Kent Thameside Strategic Transport Infrastructure Programme and grant funding from Ebbsfleet Development Corporation totalling £3.81m.

**Recommendation(s):**

The Cabinet Member for Highways & Transport is asked to approve the proposed decision to accept the capital grant from Ebbsfleet Development Company and to take the UTMC project through the stages of development and delivery as indicated on the proposed decision sheet attached at Appendix A and specifically for:

- i. Approval for KCC to enter into a funding agreement with EDC subject to the approval of the Corporate Director of Finance, Corporate & Strategic Services
- ii. Approval to undertake the design and surveys for the UTMC project. The design work will be undertaken by the KCC Traffic & Network Solutions team.

- iii. Approval to progress all statutory approvals or consents required for the schemes, including transfer of land and rights;
- iv. Approval to carry out any additional consultation required for the scheme;
- v. Approval to enter into construction contracts as necessary for the delivery and future maintenance of the scheme;
- vi. Approval for any further decisions required to allow the scheme to proceed through to delivery to be taken by the Corporate Director of Growth, Environment & Transport under the Officer Scheme of Delegations following prior consultation with the Cabinet Member.

## 1. Introduction

- 1.1 This scheme proposes to implement new, and upgrade the existing, Urban Traffic Management and Control (UTMC) system by ensuring the traffic signal junctions within or adjacent to Ebbsfleet Garden City are utilising the latest control systems and are linked to the Highway Management Centre (HMC) in Aylesford.
- 1.2 UTMC enables coordination of traffic signals to react to highway network conditions/incidents by adapting traffic light timings to ease congestion and also allows remote adjustments from the HMC. The UTMC system will integrate into existing services real time traffic information for road users by informing users of conditions via Variable Messaging Signs (VMS) and the public Kent Traffic & Travel website ([www.kenttraffic.info](http://www.kenttraffic.info)).
- 1.3 UTMC systems have already been introduced widely across Kent, significantly in Maidstone and Canterbury, and have demonstrated the benefit of maximising the capacity of the road network, by improving journey time reliability. The UTMC system will provide KCC greater control over the traffic control systems in this area and will improve data collection to enable monitoring of real time improvements to ease congestion using traffic control systems. All central systems and on street equipment use nationally agreed open standards to ensure interoperability and avoid bespoke arrangements from a single supplier.
- 1.4 The purpose of the scheme is to improve journey times for all and ensure that the transport infrastructure across Ebbsfleet and the surrounding area is used as efficiently as possible.

## 2. Financial Implications

- 2.1 The total budget for this scheme is £5.66m (Table 1). Full funding for this scheme has been identified and will require no additional contributions from KCC.

**Table 1: Financial Costs for the UTMC Scheme (£m at 2020 prices)**

### Capital Costs

	20/21	21/22	22/23	23/24	23/24	24/25	25/26	Total
UTMC junction	0.5	2.283	1.57	0.07	0.07	0.07		4.563

Upgrades and VMS installations (Cap.)								
Contingency (Cap.)	0.1	0.757	0.014	0.014	0.014	0.014		0.913
Total capital costs	0.60	3.04	1.584	0.084	0.084	0.084		5.476

#### Revenue Costs

	20/21	21/22	22/23	23/24	23/24	24/25	25/26	Total
PM Fees (Rev.)	0.06	0.06	0.06					0.18
Total revenue costs	0.06	0.06	0.06					0.18

- 2.2 The UTMC scheme was promoted and endorsed as part of the Kent Thameside Strategic Transport Infrastructure Programme (STIPs) (Decision Number 12/01953). As a project included within STIPs, £3.55m of S106 Developer Contributions have been allocated toward the project. £1.85m of developer contributions has already been banked and will directly fund the project. The outstanding £1.7m will be forward funded by EDC and repaid on receipt of the remaining developer contributions. Developer contributions will only be spent on junctions within the borough or district in which the associated development is located.
- 2.3 Ebbsfleet Development Corporation is providing KCC with a grant of £3.81m between 2020/21 and 2024/25 to deliver the Urban Traffic Management and Control (UTMC) scheme. This grant funding will consist of:
- a non-repayable capital grant to KCC of £1.93m, and;
  - a repayable grant of £1.7m which KCC will repay once developer contributions have been paid into STIPS. Based on forecasted development build out rates, these contributions are anticipated to be repaid by 2028. The risk of any potential financial overspend will be prevented by only delivering improvements within the available level of funding. Each site is being progressed as a discrete work package and the number of junctions can be scaled back or the cheaper improvements can be prioritised should costs escalate, and;
  - A non-repayable revenue grant to KCC of £0.18m
- 2.4 There is no revenue or capital exposure to KCC in the delivery of this project. KCC Officer time required for the delivery of the programme will be capitalised and met from the project funding or met from the EDC revenue grant, where it is not appropriate to capitalise the costs.
- 2.5 The revenue costs of maintaining the infrastructure following installation have been estimated as £180,000 in 2020 prices, and this includes the fees for the project management. This cost will be covered by the revenue grant from EDC.
- 2.6 The UTMC budget current sits within the Kent Thameside Strategic Transport Infrastructure Programme budget line.

### 3. The Report

- 3.1 This project was identified within the original Strategic Transport Infrastructure Programme, an innovative programme of strategic transportation works, designed to overcome constraints on the transport network to facilitate growth in housing and employment in North Kent.
- 3.2 KCC Intelligent Transport team has identified forty-one junctions within Dartford and Gravesham that need upgrading to operate an efficient UTMC system as shown in Figure 1.



**Figure 1: Location of Traffic Signal and Junction Upgrades**

- 3.3 The location of the traffic signal junctions and their proximity to other junctions determined the upgrades to the traffic management system that were required. The two intelligent traffic management systems identified for implementation by the KCC Intelligent Transport team are MOVA and SCOOT, both more efficient replacements to the existing Vehicle Actuated control currently in operation.
- 3.4 MOVA ( Microprocessor Optimised Vehicle Actuation (MOVA) is more responsive to traffic conditions than traditional Vehicle actuation (VA) control. This leads to a significant increase in capacity at junctions. MOVA assesses the traffic flows approaching on each arm of the junction and then calculates which arm should be allocated what green time and seeks to determine a set of signal timings which will maximise the throughput of the junction.
- 3.5 SCOOT (Split Cycle Offset Optimisation Technique) automatically adjusts traffic signal timings to adapt to current traffic conditions, using flow data from traffic sensors.

### 4. Policy Framework

- 4.1 Implementation of the scheme will support the Council in meeting its Strategic outcome for “Kent Communities to feel the benefits of economic growth by being in work, healthy and enjoying a good quality of life”. This will be achieved through the projects supporting continued operation of key transport networks in Dartford and Gravesham, as well as helping support growth by enabling new residential and commercial development.

- 4.2 The key priorities set out in the County Council's Integrated Transport Strategy '*Delivering Growth without Gridlock*' in terms of providing additional highway capacity, improving accessibility and reducing congestion will also be targets as benefits of the project. The scheme will set out to provide improved growth and economic prosperity through having an efficient highway and transport infrastructure.

## **5. Legal implications**

- 5.1 KCC will be entering into a funding agreement with Ebbsfleet Development Corporation which will detail the conditions of the grant funding. KCC will be appointing Invicta Law to progress this agreement.
- 5.2 No further legal implications have been identified.

## **6. Equalities implications**

- 6.1 An initial equalities impact assessment has been carried out for the scheme. This identified no adverse impacts or discrimination against any person with a protected characteristic. In addition, those members of the public who regularly use or rely exclusively on public transport should experience more reliable journey times by better functioning of Fastrack route junctions. Where required, tactile paving and pedestrian crossing facilities will also be upgraded.

## **7. Conclusions**

- 7.1 The UTMC project is a fully funded scheme and the extent of works delivered is scalable dependent on the level of funding available. No additional KCC funding will be used to deliver the scheme and officer time will be capitalised against the grant provided by EDC.
- 7.2 Implementing this scheme will aim to directly improve journey times for all road users throughout Ebbsfleet and adjacent journeys within Dartford and Gravesham. The UTMC system would enable intelligent response to traffic conditions across the area and will facilitate an upgrade to the Fastrack bus priority system. This will encourage a modal shift to more sustainable modes; reducing the number of cars using the road network and increasing the number of people that use Fastrack for journeys across the Garden City and beyond.
- 7.3 The UTMC system will ensure early warning of congestion issues in the region, particularly at the Dartford crossing and on the strategic road network. Future VMS signs will enable early route choice for those travelling in the Dartford, Gravesham and Ebbsfleet Garden City areas.

## **8. Recommendation(s):**

8.1 The Cabinet Member for Highways & Transport is asked to approve the proposed decision to accept the capital grant from Ebbsfleet Development Company and to take the UTMC project through the stages of development and delivery as indicated on the proposed decision sheet attached at Appendix A and specifically for:

- i. Approval for KCC to enter into a funding agreement with EDC subject to the approval of the Corporate Director of Finance, Corporate & Strategic Services
- ii. Approval to undertake the design and surveys for the project. The design work will be undertaken by the KCC Traffic & Network Solutions Team.
- iii. Approval to progress all statutory approvals or consents required for the schemes, including transfer of land and rights;
- iv. Approval to carry out any additional consultation required for the scheme;
- v. Approval to enter into construction contracts as necessary for the delivery and future maintenance of the schemes;
- vi. Approval for any further decisions required to allow the schemes to proceed through to delivery to be taken by the Corporate Director of Growth, Environment & Transport under the Officer Scheme of Delegations following prior consultation with the Cabinet Member.

## **9. Background Documents**

Appendix A Record of Decision  
Appendix B EqIA

## **10. Contact details**

Report Author:

Toby Butler

Traffic & Network Solutions Asset  
Manager

03000 413554

toby.butler@kent.gov.uk

Relevant Director:

Simon Jones

Director of Highways, Transportation and  
Waste

03000 410236

simon.jones@kent.gov.uk